

## FOR SEQUENCE LISTING

### SEQ ID NO: 1

#### FHOS AA1-150

5 MAGGEDRGDGEPVSVVTVRVQYLEDTPFACANFPEPRRAPTCSLDGALPLG  
AQIPAVHRLLGAPLKLEDCALQVSPSGYYLDTELSLEEQREMLEGFYEEISKG  
RKPTLILRTQLSVRVNAILEKLYSSSGPELRRSLFSLKQIFQEDK

### 10 SEQ ID NO: 2 FHOS (1-250 AA)

MAGGEDRGDGEPVSVVTVRVQYLEDTPFACANFPEPRRAPTCSLDGALPLG  
AQIPAVHRLLGAPLKLEDCALQVSPSGYYLDTELSLEEQREMLEGFYEEISKG  
15 RKPTLILRTQLSVRVNAILEKLYSSSGPELRRSLFSLKQIFQEDKDLVPEFVHSE  
GLSCLIRVGAAADHNYQSYILRALGQLMLFVDGMLGVVAHSDTIQWLYTLC  
ASLSRLVVKTALKLLLVFVEYSENNAPLFIRAVNSVATT

### 20 SEQ ID NO: 3 FHOS (1-348 AA)

MAGGEDRGDGEPVSVVTVRVQYLEDTPFACANFPEPRRAPTCSLDGALPLG  
AQIPAVHRLLGAPLKLEDCALQVSPSGYYLDTELSLEEQREMLEGFYEEISKGR  
KPTLILRTQLSVRVNAILEKLYSSSGPELRRSLFSLKQIFQEDKDLVPEFVHSEG  
25 LSCLIRVGAAADHNYQSYILRALGQLMLFVDGMLGVVAHSDTIQWLYTLCAS  
LSRLVVKTALKLLLVFVEYSENNAPLFIRAVNSVATTTGAPPWANLVSILEEKN  
GADPELLVYTVTLINKTLAALPDQDSFYDVTDALEQQGMDTLVQRHLGTAGT  
DVDLRTQLVLYENALKLEDGDIEEAPGAG

### 30 SEQ ID NO: 4 mRNF23 (101-234)

IRDESLCSQHHEPLSLFCYEDQEAVCLICAISHTHRPHTVVPMDATQEYKEKL  
QKCLEPLEQKLQEITCCKASEEKKPGELKRLVESRRQQILKEFEELHRLDEEQ  
35 QTLLSRLEEEEQDILQRLRENAHLG

### SEQ ID NO: 5 mERp59 (J05185.1) 23-325

40 EEEDNVLVLKKS NFEEALAAHKYLLVEFYAPWCGHCKALAPEYAKAAAKLK  
AEGSEIRLAKVDATEESDLAQYGVRGYPTIKFFKNGDTASPKEYTAGREADD  
IVNWLKKRTGPAATTLSDTAAAESLVDSSSEVTIGFFKDVEDSAKQFLAAE  
AIDDIPFGITSNSGVFSKYQLDKDGVVLFKKFDEGRNNFEGEITKEKLLDFIKH  
NQLPLVIEFTEQTAPKIFGGEIKTHILLFLPRSVSDYDGKLSSFKRAAEGFKGI  
45 LFIFINSDHTDNQRILEFFGLKKEECPAVRLITLLEE

### SEQ ID NO: 6 mBRD7(621) (NA)

5 GHDSSEFEDRSDHDKHKDRKRKKRKKGEKQAPGEEKGRKRRRVKEDKKKR  
DRDRAENEVDRLQCHVPIRLDLPPEKPLTSSLAKQEEVEQTPLQEALNQLMR  
QLQSTMKEKIKNNDYQSIEELKDNFKLMCTNAMIYNKPETIYYKAAKKLLHS  
GMKILSQERISLQKSIDFMSDLQKTRKQKERTDACQSGEDSGCWQREREDS  
GDAETQAFRSPAKDNKRKDRDVLEDKWRSSNSEREHEQIERVVQESGGKLTR  
RLANSQCEFE

**SEQ ID NO: 7**  
**mSPNA1 45-677**

10 NDWAALLELWDKQCQHQRQCLDFHLFYRDSEQVDSWMSGQEAFLNEDLG  
NSVGSVEALLQKHDDFEEAFTAQEEKIITLDETATKLIDNDHYDSENIAAIRDG  
LLARRDALRERAATRRKLLVDSQLLQQLYQDSDDLKTWINKKKKLADDDY  
KDVQNLKSRVQKQQDFEELAVNEIMLNNLEKTGQEMIEDGHYASEAVAARL  
15 SEVANLWKELLVATAHK

**SEQ ID NO: 8**  
**MVCP 478-797**

20 DIGGLEDVKRELQELVQYPVEHPDKFLKFGMTPSKGVLFYGPFGCGKTLLAK  
AIANECQANFISIKGPELLTMWFGSEANVREIFDKARQAAPCVLFFDELDSIA  
KARGGNIGDGGGAADRVINQILTEMDGMSTKKNVFIIGATNRPDIIDPAILRPG  
RLDQLIYIPLPDEKSRVAILKANLQKSPVAKDVDFLEFLAKMTNGFSGADLTEIC  
25 QRACKLAIRESEIRRRERERTNPSAMEVEEDDPVPEIRRDHFEEAMRFARR  
SVSDNDIRKYEMFAQTLQQSRGFGSFRFSGNQGGAGPSQSGGGGTGGSVYT

**SEQ ID NO: 9**  
**mSTAT5A 32-319**

30 HYLAQWIESQPWGAIIDLDNPQDRGQATQLLEGLVQELQKKAEHQVGEDGFL  
LKIKLGHYATQLQNTYDRCPMELVRCIRHILYNEQRLVREANNCSSPAGVLVD  
AMSQKHLQINQRFEELRLITQDTENELKKLQQTQEYFIIQYQESLRIQAQFAQL  
GQLNPQERMSRETALQQKQVSLETWLQREAQTLQQYRVELAEKHQKTLQLL  
35 RKQQTIIIDDELIQWKRRQQLAGNGGPPEGSGLDVLQSWCEKLAELIHWQNRQQI  
RRAEHLCCQLPIPGPVEEMLAEVNAT

**SEQ ID NO: 10**  
**Figure 8- Partial Amino Acid Sequence (mTAKEDA009, AA 1-116)**

40 AIVERRANLLRAEIEELRATLEQTERSARKIAEQELLDASERVQLLHTQNTSLINT  
KKKLENDVSQLQSEVEEVIQESRNAEEKAKKAITDAAMMAEELKKEQD TSA  
HLERMKKNME

**SEQ ID NO: 11**  
**mPTRF 25-130**

50 EPTQGEARATEEPSGTDSDELIKSDQVNGVLVLSLLDKIIGAVDQIQLTQAQLE  
ERQAEMEGAVQSIQGELSKLGKAHATTSNTVSKLLEKVRKVS NVKTVRGSL

**SEQ ID NO: 12**  
**mAK031693 72-360**

5 QYKTKCESQSGFILHLRQLLSRGNTKFEALTVVVIQHLLSEREEALKQHKTLSQ  
ELVSLRGELVAASSACEKLEKARADLQTAYQEFVQKLDQQHQTDRTLENRL  
KDLYTAECEKLQSIYIEEAKEYKTQLQEFDNLNAAHETTKLEIEASHSEKVEL  
LKKTYETSLSEIKKSHEMEKKSLDLLNEKQESLEKQINDLKSENDALNERLK  
10 SEEQKQLSREKANSKNPQVMYLEQELESLEKAVLEIKNEKLHQQDMKLMKME  
KLVDNNTALVDKLRFFQGENEELNAR

**SEQ ID NO: 13**  
**m1200014P03Rik 253-546**

15 ATMLNILALVYRDQNKYKEAAHLLNDALSIRESTLGRDHPAVAATLNNLAVLY  
GKRGKYKEAEPLCQRALEIREKVLGTDHPDPAKQLNNLALLCQNQGKYEAV  
ERYYYQALAIYESQLGPDNPNVARTKNNLASCYLKQGKYSEAEALYKEILTCA  
HVQEFSGSVDDDHKPIWMHAEEREEMSRSRPRDSSAPYAEGGWYKACRVSS  
PTVNTTLKNLGA PYRRQGKLEAAETLEECALRSRKQGTDPISQTKVAELLGEG  
20 DGRKAIQEGPGDSVKFEGGEDASVAVEWSGDGS

**SEQ ID NO: 14**  
**mNNP1 41-391**

25 QRATGGFTPDELLKVWKGIFYCMWMQDKPLQQEELGRTIAQLVHAFHTTEA  
QHQLKAFWQTMIREWVGIDRLRLDKFYMLMRMVLSESLKAVKARGWDER  
QIEQLLELLTTEILNPDSQAPSGVKSHFLEIFLEELAKVGAAELTADQNLQFIDP  
FCQIAARTKDSQVLHKIIQSIFQTIVEQAPLAIEDIMNELDTQSgegeASDGGDG  
EASDGGDGEASDDDDGEASDGGDGDVADSDDSDGADDDDDGDVSDGDGGD  
30 NDEGDSNKSSEGEQDLQDTPPKKLPAAGTAHRAGPEADKEQAWDDEENAGPV  
LQFDYEALANRLFKLASRQSTPSQNRKRLYKVIQKLRELA

**SEQ ID NO: 15**  
**Figure 13- Partial Amino Acid Sequence (mLOC213473(195))**

35 RRVKDDAAAHIASLKASHEREIEKLLCQNAIENSSSKVAELNRKIATQEVLLKH  
FQGQVNELQGKQESLAVSQVREEILKQITKLLEELKEAKENHTPEMKHFMG  
LERKIKQMEMRHRQREQELQQIIQQTRQVVETEQNKEVEKWKRLAQLKNRE  
LDKFRTELDSDLDVLRHLRQGVVVPMALAGEENTAEF

**SEQ ID NO: 16**  
**mGOLGA3 820-1019**

45 QFINELKATKKRLDSEMKELRQELIKLQGEKKTVEVEHSRLQKDMSLVHQQM  
AELEGHLQSVQKERDEMEIHLQSLKFDKEQMIALTEANETLKKQIEELQQEAK  
KAITEQKQMKMRLGSDLTSAQKEMKTKHKAYENAVSILGRRLQEALASKEAT  
DAELNQLRAQSTGGSSDPVLHEKIRALEVELQNVGQSKIPREK

50

**SEQ ID NO: 17**  
**mMYG1-pending 49-368**

5 HNGTFHCDEALACALLRLLPEYANAEIVRTRDPEKLASCDIVVDVGGEYNPQS  
HRYDHHQRTFTETMSSSLCPGKPWQTKLSSAGLVYLHFGRKLLAQLLGTSEED  
SVVDTIYDKMYENFVEEVDAVDNGISQWAEGEPRYAMTTTLSARVARLNPTW  
NQPNDTEAGFRRAMDVLVQEEFLQRLNFYQHSWLPARALVEEALAQRFKVD  
SSGEIVELAKGGCPWKEHLYHLESELSPKVAITFVIYTDQAGQWRVQCVKPEP  
10 HSFQSRLPLPEPWRLDKALDQVSGIPGCIFVHASGFIGGHHTREGALNMAR  
ATLAQR

**SEQ ID NO: 18**  
**mAK044679(668) 1-243**

15 MSSQSMKLPPSNSALPNQALGSIAGLTQNLNSVRQNGNPNMFGVGNTAAQP  
RGMQQPPAQLSSSQPNLRAQVPPPLLSPQVPVSLLKYAPNNGGLNPLFGPQQ  
VAMLNQLSQLNQLSQISQLQRLLAQQQRAQSQRSAPSANRQQQDQQGRPLSV  
QQQMMQQSRQLDPSLLVKQQTTPSQQLHQPAMKSFLDNVMPHTTPELQKG  
20 PSPVNAFSNFPIGLNSNLNVNMDMNSIKEPQSRLR

**SEQ ID NO: 19**  
**RS21C6 69-170**

25 ELFQWKTDGEPGPQGWSRERAALQEELSDVLIYLVALAARCRVDLPLAVLS  
KMDINRRRYPAPHLARSSSRKYTELPHGAISEDQAVGPADIPCDSTGQTST

**SEQ ID NO: 20**  
**KIAA0562 264-635**

30 EDYDLAKEKKQQMEQYRAEVYEQLELHSLDDAELMRRPFDLPLQPLA  
RSGSPCHQKPMPSLPQLEERGTHENQFAEPFLQEKPSYSLTISPQHSV  
DPLLPATDHPKINAESLPYDERPLPAIRKHGEAVVEPEMSNADISDA  
RRGGMGEPEPLTEKALREASSAIDVLGETLIAEAYCKTWSYREDALLA  
35 LSKKLMEMPVGTPKEDLKNTLRASVFLVRRRAIKDIVTSVVFQASLKKLK  
MITQYIPKHKLSKLETAHCVERTIPVLLTRTGDSSARLRVTAANFIQEM  
ALFKEVKSLQIIPSYLVQPLKANSSVHLAMSQMGLLARLLKDLGTGSSG  
FTIDNVMKFSVSALEHRVYEVRETAVRIILD

40 **SEQ ID NO: 21**  
**COPB 306-868**

IELKEHPAHERVLQDLVMDILRVLSTPDLEVRKKTLLQALDLVSSRNVEELVIV  
LKKEVIKTNNVSEHEDTDKYRQLLVRTLHSCSVRFPDMAANVIPVLMEFLSD  
45 NNEAAAADVLEFVREAIQRFDNLRMLIVEKMLEVFHAIKSVKIYRGALWILGE  
YCSTKEDIQSVMTIIRSLGEIPIVESEIKKEAGELKPEEEITVGPVQKLVTEMG  
TYATQSALSSSRPTKKEEDRPPLRGFLLDGDDFFVAASLATTLTKIALRYVALVQE  
KKKQNSFVAEAMLLMATILHLGKSSLPKKPITDDDVDRLSLCLKVLSECSPLM  
NDIFNKECRQSLSHMLSAKLEEEKLSQKKESEKRNVTVPDDPISFIQLTAKNE

MNCKEDQFQLSLLAAMGNTQRKEAADPLASKLNKVTQLTGFSDPVYAEAYV  
HVNQYDIVLDVLVVNQTSDTLQNCTLELATLGDLKLVEKPSPLTLAPHDFANI  
KANVKVASTENGIIFGNIVYDVSGAASDRNCVVLSDIHIDIMDYIQPATCTDAE  
FRQMWAEFEWENKVTVNTNMVDLNDYLQH

5

**SEQ ID NO: 22**  
**MYH7 1250-1619**

10 RTLEDQMNEHRGKAEETQRSVNDLTSQRAKLQTENGELSRQLDEKEA  
LISQLTRGKLTYYTQQLEDLKRQLEEEVKAKNALAHALQSARHDCDLLR  
EQYEEETEAKAELQRVLSKANSEVAQWRTKYETDAIQRTEELEEA  
LAQRLQEPEEAVEAVNAKCSSLEKTKHRVPNEIEDLMVDVERSNA  
ALDKKQRNFDKILAEWKQKYEESQSELESSQKEARSLSTELFKLKNAY  
EESLEHLETFKRENKNLQEEISDLTEQLGSSGKTIHELEKVRKQLEAE  
15 KMELQSALEEAASLEHEEGKILRAQLEFNQIKAEIERKLAEKDEEME  
QAKRNHLRVVDSLQTSLDAETRSRNEALRVKKKME

**SEQ ID NO: 23**  
**MYH7 820-1038**

20

ALMGVKNWPWMKLYFKIKPLLKSAEREKEMASMKEEFTRLKEALEK  
SEARRKELEEKMVSLLEKNDLQLQVQAEQDNLADAEERCDQLIKNK  
IQLEAKVKEMNERLEDEEEMNAELTAKKRKLEDECSELKRDIDDLELT  
LAKVEKEKHATENKVKNLTEEMAGLDEIIAKLTKEKKALQEAHQAL  
25 DDLQAEEDKVNTLTAKVKLEQQVDDLEGL

**SEQ ID NO: 24**  
**KIAA1633 243-406**

30 DSINNLAELNKFALRKQLEQDVLSYQNLRKTLLEEQISEIRRRREEESF  
SLYSDQTSYLSICLEENNRFQVEHFSQEELKKKVSDLIQLVKELYTDNQ  
HLKKTIFDLSCMGFQGNQFPDRLASTEQTELLASKEDEDTIKIGEDDEI  
NFLSDQHLQQSNEIMKD

35 **SEQ ID NO: 25**  
**KIAA1288(1191) 652-1078**

40 EKQELKQEIMNETFEYGSLFLGSASKTTTTSGRNISKPDSCGLRQIAAP  
KAKVGPPVSCLRNRNSDNRNPSADRAVSPQRIRRVSSSAGNAAVIKYEEK  
PPKPAFQNGSSGSFYLKPLVSRHVHLMKTPPKGPSRKNLFTALNAVE  
KSKQKNPRSLCIQPQTAPDALPPEKTLELTPYKTKCENQSGFILQLKQL  
LACGNTKFEALTVVIQHLLSEREEALKQHKTLSQLVNLRGELVTASTT  
REKLEKARNELQTVYEAQVQHQAEKTERENRLKEFYTREYEKLRDT  
YIEEAEKYKMQLQEFGNLNAAHETFKLEIEASHSEKLELLKKAYEAS  
45 LSEIKKGHEIEKKSLEDLLSEKQESLEKQINDLKSENDALNEKLKSEE  
QKRRAREKANLKNPQIMYLEQELESKAVLEIKNEKLHQQ

**SEQ ID NO: 26**

**mVCL 29-475**

5 EGEVDGKAIPDLTAPVAAMQAAVSNLVWVGKETVQTTEDQILKRDMPPAFIK  
VENACTKLVQAAQMLQSDPYSPARDYLIDGSRGILSGTSDLLTFDEAEVRK  
IIRVCKGILEYLTVAEVVETMEDLVITYTKNLGPGMTKMAKMIDERQQELTHQE  
HRVMLVNSMNTVKELLPVLISAMKIFVTSKNSKNQGIEEALKNRNFTVEKMS  
AEINEIIRVLQLTSWDEDAWASKDTEAMKRALASIDSKLNQAKGWLDPNAS  
10 PGDAGEQAIRQILDEAGKVGELCAGKERREILGTCKMLGQMTDQVAGLRAR  
GQGASPVAMQKAQQVSQGLDVLTAKVENAARKLEAMTNSKQSIAKKI  
DAAQNWLAADPNGGPEGEEQIRGALAEARKIAELCDDPKVRDDILRSLG  
EIAALTSKLGDLRRQGKGDSPEARALAKQVATALQNLQT

15 **SEQ ID NO: 27**

**FOS – FULL LENGTH AMINO ACID SEQUENCE, FIGURE 1**

MAGGEDRGDGEPVSVVTVRVQYLEDTDPFACANFPEPRRAPTCSLDGALPLG  
AQIPAVHRLLGAPLKLEDCALQVSPSGYYLDTELSLEEQREMLEGFYEEISKGR  
20 KPTLILRTQLSVRVNAILEKLYSSSGPELRRSLFSLKQIFQEDKDLVPEFVHSEG  
LSCLRVGAAADHNYQSYILRALGQLMLFVDGMLGVVAHSDTIQWLYTLCAS  
LSRLVVKTALKLLLVFVEYSENNAPLFIRAVNSVATTTGAPPWANLVSILEEKN  
GADPELLVYTVTLINKTLAALPDQDSFYDVTDALEQQGMDTLVQRHLGTAGT  
DVDLRTQLVLYENALKLEDGDIEEAPGAGGRRERRKPSSEEGKRSRRSLEGGG  
25 CPARAPEPGPTGPASPVGPTSSTGPALLTGPASSPVGPSSGLQASVNLFPITISVAP  
SADTSSERSIYKARFLENVAAAEOTEKQVALAQGRAETLAGAMPNEAGGHPDA  
RQLWDSPETAPAARTPQSPAPCVLLRAQRSLAPEPEPLIPASPKAEPIWELPTR  
APRLSIGDLDFSDLGEDEDQDMLNVESVEAGKDIPAPSPPLPLLSGVPPPPPLPP  
PPPIKGPFPPLPLAAPLPHSVDPSSALPTKRKTVKLFWRDVKLAGGHGVSA  
30 SRFGPCATLWASLDPVSVDTARLEHLFESRAKEVLPSKKAGEGRRTMTTVLDP  
KRTNAINIGLTTLPPVHVIKAALLNFDEFVSKDGIEKLLTMMPTTEERQKIEG  
AQLANPDIPLGPAENFLMTLASIGGLAARLQLWAFKLDYDSMEREIAEPLFDL  
KVGMEQLVQNATFRCLATLLAVGNFLNGSQSSGFELSYLEKVSDVKDTRVRQ  
SLLHHLCSVLQTRPESSDLYSEIPALTRCAKVDFEQLTENLGQLERRSRAAEES  
35 LRSLAKHELAPALRARLTHFLDQCARRVAMLRIVHRRVCNRFHAFLLYLGYP  
QAAREVRIMQFCHTLREFALEYRTCRRVLQQQQKQATYRERNKTRGRMITE  
TEKFSGVAGEAPSNPSVPVAVSSGPGRGDADSHASMKSLTSTRLEDTHNRRS  
RGMVQSSSPIMPTVGPSTASPEEPPGSSLPSTDSDEIMDLLVQSVTKSSPRALAA  
RERKRSRGNRKSRLRRTLKSGLGDDLVAALGLSKGPGLEV

40

**SEQ ID NO: 28**

**Full-length Amino Acid Sequence (mRNF23)**

MAETSLLEAGASAASTAAALENLQVEASCSVCLEYLKEPVIIECGHNFCACI  
45 TRWWEDLERDFPCPVCRKTSRYRSLRPNRQLGSMVEIAKQLQTVKRKIRDES  
LCSQHHEPLSLFCYEDQEAVCLICAISHTRPHTVVPMDATQEYKEKLQKCL  
EPLEQKLQEITCKKASEEKKPGELKRLVESRRQQILKEFEELHRRLDDEEQQTLL  
SRLEEEEQDILQRLRENAHLGDRRRDLAHLAAEVEGKCLQSGFEMLKDVKS  
TLEKCEKVKTMEVTSVSIELEKNFSNFPRQYFALRKILKQLIADVTLDPETAHP  
50 NLVLSERDKSVKFBVETRLRDLPTPQRFTFYPCVLATEGFTSGRHYWEVEVG

DKTHWAVGVC RDSVSRKGELTPLPETGYWRVRLWNGDKYAATTTPTPLHIK  
VKPKRVGIFLDYEAGTLSFYNVTD RSHIYTFDTFTEKLWPLFYPGIRAGRKN  
AAPLTIRPPTDWE

5 **SEQ ID NO: 29**

**Figure 3- Full-length Amino Acid Sequence (mERp59)**

MLSRALLCLALAWAARVGADALEEEDNVLVLKKS NFEEALAAHKYLLVEFY  
APWCGHCKALAPEYAKAAAKLKAEGSEIRLAKVDATEESDLAQQYGVRGYP  
10 TIKFFKNGDTASPKKEYTAGREADDIVNWLKKRTGPAATTLSDTAAAESLVDSS  
EVTVIGFFKDVESDSAQQLLAAEAIDDIPFGITSNSGVFSKYQLDKDGVVLFK  
KFDEGRNNFEGEITKEKLLDFIKHNQLPLVIEFTEQTAPKIFGGEIKTHILLFLPK  
SVSDYDGLSSFKRAAEGFKGKILFIFIDSDHTDNQRILEFFGLKKEECPAVRLI  
TLEEEMTKYKPESDELTAEKITEFCHRFLEGKIKPHLMSQEV PEDWDKQPVKV  
15 LVGANFEEVAFDEKKNVFVEFYAPWCGHCKQLAPIWDKLGETYKDHENIIIAK  
MDSTANEVEAVKVHSFPTLKFFPASADRTVIDYNGERTLDGFKKFLESGGQDG  
AGDDEDLDLEEALPDMEEDDDQKAVKDEL

**SEQ ID NO: 30**

20 **Figure 4- Full-length Amino Acid Sequence (mBRD7(621))**

MGKKHKKHKS DRHFYEEYVEKPLKLVLVGGSEVTELSTGSSGHDSSLFEDR  
SDHDKHKDRKRKKRKKGEKQAPGEEKGRKRRRVKEDKKKRDRDR AENEVD  
RDLQCHVPIRLDLPPEKPLTSSLAKQEEVEQTPLQEALNQLMRQLQSTMKEKI  
25 KNNDYQSIEELKDNFKLMCTNAMIYNK PETIYYKAAKKLLHSGMKILSQERI  
QSLKQSIDFMSDLQKTRKQKERTDACQSGEDSGCWQREREDSGDAETQAFRS  
PAKDNKRKDKDVLEDKWRSSNSEREHEQIERVVQESGGKLTRRLANSQCEFE  
RRKPDGTTTLGLLHPVDPIVGEPGYCPVRLG MTTGRLQSGVNTLQGFKEDKR  
NRVTPVLYLNYGPYSSYAPHYDSTFANISKDDSDLIYSTYGEDSDLPNNFSISEF  
30 LATCQDYPYVMADSLLDVLTGGHRSRLQD LDMSSPEDEGQTRALDTAKEAE  
ITQIEPTGRLESSSQDRLTALQAVTTFGAPAEVFDSEEA EVFQRKLDETT RLLRE  
LQEAQNERLSTRPPPNMICLLGPSYREMYLA EQVTNNLKELTQQVTPGDV VSI  
HGVRKAMGISVPSPIVGNSFVDLTGECEEPKETSTAECGP DAS

35 **SEQ ID NO: 31**

**Figure 5- Full-length Amino Acid Sequence (mSPNA1) SEQ ID NO: 31**

METPKETAVESSGPKVLETAEEIQHRRAEVLN QYQRFKDRVAERGQKLEESYH  
YQVFRRDADDLEKWIMEKLEIAKD KTYEPTNIQGKYQKHESFVSEVQAKSRV  
40 LPELEEIREARFAEDHFAHEATKTHL KQLRLLWDLLLELTQEKS DVLLRALKF  
YQYSQECEDILEWVKEKEAIVTLVELGDD WERTEVLHKKFEEFQEELTARKG  
KVDRVNQYANECAQEKHPKLPEIKAKQDE VNAAWDRLWSLALKRRESLSNA  
ADLQRFKRVDVNEAIQWMEEKEPQLTSEDY GKDLVSSEALFHNHKLRLERNLAV  
MDDKV KELCAKADKLMISHSADAPQIQM KLDLVSNWERIRALATNRYAKL  
45 KASYGYHRFLSDYDELSGWMKEKTALIN ADELPTDVASGEALLARHQH KH  
EIDSYDDRFSADATGQELLDGNHEASEE IREKMTILANDWAALLELWDK CQ  
HQYRQCLDFHLFYRDSEQVDSWMSRQEA FLENEDLGNSVGSVEALLQKHDD  
FEEAFTAQEEKIITLDETATKLIDNDHYD SENIAAIRDGLLARRDALRERAATR  
KLLVDSQLLQQLYQDSDDLKTWINKKKK LADDDDYKDVQNLKSRVQKQQD  
50 FEEELAVNEIMLNNLEKTGQEMIEDGHY ASEAVAARLSEVANLWKELLEATAQ



QLIYIPLPDEKSRVAILKANLRKSPVAKDVDLEFLAKMTNGFSGADLTEICQRA  
CKLAIRESIESEIRRERERQTNPSAMEVEEDDPVPEIRRDHFEEAMRFARRSVS  
DNDIRKYEMFAQTLQQSRGFGSFRFPSGNQGGAGPSQGSGGGTGGSVYTEDN  
DDDLYG

5

**SEQ ID NO: 33**

**Figure 7- Full-length Amino Acid Sequence (mSTAT5A)**

MAGWIIQAQQLQGDALRQMQVLYGQHFPPIEVRYLAQWIESQPWDAIDLDP  
10 QDRGQATQLLEGLVQELQKKAHQVGEDGFLKIKLGHYATQLQNTYDRCP  
MELVRCIRHILYNEQRLVREANNCSSPAGVLVDAMSQKHLQINQRFEELRLITQ  
DTENELKKLQQTQEYFIIQYQESLRIQAQFAQLGQLNPQERMSRETALQKQV  
SLETWLQREAQTLQQYRVELAEKHQKTLQLLRKQQTIIIDDELIQWKRRQQL  
AGNGGPPEGSLDVLQSWCEKLAHIIWQNRQQIRRAEHLCCQLPIPGPVEEMLA  
15 EVNATITDIISALVTSTFIEKQPPQVLKTQTKFAATVRLLVGGKLVNVMNPPQV  
KATIISEQQAISLLKNENTRNECSGEILNCCVMEYHQATGTLSAHFRNMSLK  
RIKRADRRGAESVTEEKFTVLFESQFSVGSNELVFQVKTLSPVVVIVHGSQD  
HNATATVLWDNAFAEPGRVPFAVPDKVLWPQLCEALNMKFKAQVQSNRGLTK  
ENLVFLAQKLFNINSSNHLEDYNSMSVSWSQFNRENLPGWNYTFWQWFDGVM  
20 EVLKKHHKPHWNDGAILGFVNKQQAHDLLINKPDGTFLLRFSDSEIGGITIAW  
KFDSPDRNLWNLKPFTTRDFSIRSLADRLGDLNLIYVFPDRPKDEVFAKYIT  
PVLAKAVDGYVKPQIKQVPEFVNASTDAGASATYMDQAPSPVVCPPHYN  
MYPPNPDPVLDQDGEFDLDESMDVARHVEELLRRPMDSLDARLSPPAGLFTS  
ARSSLS

25

**SEQ ID NO: 34**

**Figure 9- Full-length Amino Acid Sequence (mPTRF)**

MEDVTLHIVERPYSGFDPDASSEGPEPTQGEARATEEPSGTGSDELIKSDQVNGV  
30 LVLSLLDKIIGAVDQIQLTQAQLEERQAEMEGAVQSIQGELSKLGKAHATTSNT  
VSKLLEKVRKVSINVKTVRGSLERQAGQIKKLEVNEAELLRRRNFKVMYIQD  
EVKLPAKLSVSKSLKESEALPEKEGDELGERPEDDTAAIELSSDEAVEVEEV  
IIESRAERIKRSGLRVDDFKKAFSKEKMEKTKVRTRENLEKTRLKTKENLEK  
TRHTLEKRMNKLGTRLVPVERREKLKTSRDKLRKSFTPDHVYARSKTAVYK  
35 VPPFTFHVKKIREGEVEVLKATEMVEVGPEDDEVGAERGEATDLLRGSSPDV  
HTLLEITEESDAVLVDKSDSD

**SEQ ID NO: 35**

**Figure 10- Full-length Amino Acid Sequence (mAK031693)**

40

MLLSPKFSLSTIHVRLTAKGLRNRLPPLGRKNTVIFHTVEKGRQKNPRSLCIQ  
TQTAPDVLSSERTLELAQYKTKCESQSGFILHLRQLLSRGNTKFEALTVVIQHL  
LSEREEALKQHKTLSQELVSLRGELVAASSACEKLEKARTDLQTAYQEFVQKL  
NQQHQTDRTELENRLKDLYTAECEKLQSIYIEEAKEYKTQLQEQFDNLNAAH  
45 ETTKLEIEASHSEKVELLKKTYETSLSEIKKSEMEKKSLEDLLNEKQESLEKQ  
INDLKSENDALNERLKSEEQQLSREKANSKNPQVMYLEQELESLEKAVLEIKN  
EKLHQQDMKLMKMEKLVNNTALVDKLRKFQQENEELKARMDKHMAISRQ  
LSTEQAALQESLEKESKVNKRLSMENEELLWKLHNGDLCSPKRSPTSSAIPFQ  
SPRNSGSFSSPSISPR

50

**SEQ ID NO: 36**

**Figure 11- Full-length Amino Acid Sequence (m1200014P03Rik)**

5 MSGLVLGQRDEPAGHRLSQEILGSTKVVSQGLEALHSEHQAVLQSLSHTIEC  
LQQGGHEEGLVHEKARQLRRSMENIELGLSEAQVMLALASHLSTVESEKQKL  
RAQVRRLCQENQWLRDEL AGTQQRLQRSEQAVAQLEEEKKHLEFLRQLRQY  
DEDGHGMEEKEGEATKDSLDDLFPNEEEEDSGNDLSRGQGAAAAQQGGYEIP  
10 ARLRTLHNLVIQYAAQGRYEVAVPLCKQALEDLERTSGRGHPDVATMLNILAL  
VYRDQNKYKEAAHLLNDALSIRESTLGRDHPAVAATLNNLAVLYGKRGKYKE  
AEPLCQRALEIREKVLGTDHPDVAKQLNNLALLCQNQGKYEAVEYYYQRAL  
AIYESQLGPDNPNVARTKNNLASCYLKQGKYSEAEALYKEILTCAHVQEFQSV  
DDD HKPIWMHAEEREEMSRSRPRDSSAPYA EYGGWYKACRVSSPTVNTTLK  
NLGALYRRQGGKLEAAETLEECALRSRKQGTDPISQTKVAELLGEGDGRKAIQE  
15 GPGDSVKFEGGEDASVAVEWSGDGSGTLQRSGSLGKIRDVLRRSSELLVRKLQ  
GTEPRPSSSSMKRAASLNYLNQPNAAPLQVSRGLSASTVDLSSSS

**SEQ ID NO: 37**

**Figure 12- Full-length Amino Acid Sequence (mNNP1) (SEQ ID NO: 37)**

20 MVPGVPLPPEIQLAQRLAGNEQVTRDRALRKLRKYIEARSQRATGGFTPDELL  
KVWKGLFYCMWMQDKPLQQEELGRTIAQLVHAFHTTEAQHQFLKAFWQTM  
IREWVGIDRLRLDKFYMLMRMVLSESLKAVKARGWDERQIEQLLELLTTEILN  
PDSQAPSGVKSHFLEIFLEELAKVGAAELTADQNLQFIDPFCQIAARTKDSQVL  
25 HKIIQSIFQTIVEQAPLAIEDIMNELDTQS GEGEASDGDDGEASDGDDGEASDD  
DDGEASDGDDGDVADSDSDGADDDGDVSDGDGDNDEGDSNKSSEGEQ  
DLQDTPPKKL PAGTAHRAGPEADKEQAWDDEENAGPVLQFDYEALANRLFK  
LASRQSTPSQNRKRLYKVIQKLRELAGGTFPEDDVPEKAYKKMLEGRRERKK  
KKKRLPKPQPQNKEAGSEAESSADPGPRKRKRNRKTDEKAGQGGPPGKR  
30 RKP GARAKGAGAQQPKKRIQSSQSAE

**SEQ ID NO: 38**

**Figure 14- Full-length Amino Acid Sequence (mGOLGA3) (SEQ ID NO: 38)**

35 MDGASAKQDGLWESKSSSDVSSCPEASLETVGSLARLPDQQDTAQDASVEV  
NRGFKEEGSPDRSSQVAICQNGQIPDLQLSLDPTTSPVGPDA STGSTASSLPLE  
KEEQVRLQARKRLEEQLMQYRVKRHRERSSQPATKMKLFSTLDPELMLNPE  
NLPRASTVAVTKEYSFLRTSVPRGPKVGS LGLLAHSKEKKNSKSSKIRSLADY  
RTEDPSDSGGLGSTADAVGSSLKQSRSSTSVVSEVSPSSETDNRVESASMTGD  
40 SVSEADGNESDSSSHSSLSARGACGVLGNVGMPTAYMVDGQEISAEALGQF  
PSIKDVLQAAAAQHQQNQNEANGEVRSRRDSICSSVSMESSLAEPQDELLQIL  
KDKRRLEGQVEALSLEASQALQEKAELQAQLAALSTRLQAQVEHSHSSQK  
QDLSLSEVDTLKQSCWDLGRAMTDLQSMLEAKNASLASSNNDLQVAEEQYQ  
RLMAKVEDMQRNILSKDNTVHDLRQQMTALQSQLQQVQLERTTTLTSKLQAS  
45 QAEITSLQHARQWYQQQLTLAQEARVRLQGETAHIQVGQMTQAGLLEHLKL  
ENVSLSHQLTETQHRSIKEKERIAVQLQSI EADMLDQEA AFVQIREAKTMVEE  
DLQRRLEEFEGEREQLQKVADAAASLEQQLEQVKLTLFQRDQQLAALQQEH  
LDVIKQLTSTQEALQAKGQSLDDLHTRYDELQARLEELQREADSREDAIHFLO  
NEKIVLEVALQSAKSDKEELDRGARRLEEDTEETSGLLEQLRQDLAVKSNQV  
50 EHLQQETATLRKQMVKVKEQFVLQKVMVEAYRRDATSKDQLINELKATKK

RLDSEMKELRQELIKLQGEKKTVEVEHSRLQKDMSLVHQQMAELEGHLQSV  
 QKERDEMEIHLQSLKFDKEQMIALTEANETLKKQIEELQQEAKKAITEQKQK  
 MKRLGSDLTSAQKEMKTKHKAYENAVSILSRRLQEALASKEATDAELNQLR  
 AQSTGGSSDPVLHEKIRALEVELQNVGQSKILLEKELQEVITMTSQELEESREK  
 5 VLELEDELQESRGFRRIKRLLEESNKKLALLEHERGKLTGLGQSNAALREHN  
 SILETALAKREADLVQLNLQVQAVLQRKEEEDRQMKQLVQALQVSLEKEKM  
 EVNSLKEQMAAARIEAGHNRRHFKAATLELSEVKKELQAKEHLVQTLQAEV  
 DELQIQDGKHSQEIAQFQTELAEARTQLQLLQKKLDEQMSQQPTGSQEMEDL  
 KWELDQKEREIQSLKQQLDLTEQQGKKELEGTQQTQTITIKSELEMVQEDLSE  
 10 TQKDKFMLQAKVSELKNNMKTLLQQNQQLKLDLRRGAACKKEPKGESNSSS  
 PATPIKIPDCVPVPSLLELLRPPPAVSKEPLKNLNNCLQQLKQEMDSLQRQM  
 EEHTITVHESLSSWAQVEAAPAEHAHPRGDTKLHNQNSVPRDGLGQ

**SEQ ID NO: 39**

15 **Figure 15- Full-length Amino Acid Sequence (mMYG1-pending)**

MGRRFLRGILTPLRSVLQAQHRMLGSEQDPPAKRPRNNLMAPPRIGTHNGTF  
 HCDEALACALLRLLPEYANAEIVRTRDPEKLASCDIVVDVGGEYNPQSHRYD  
 HHQRTFTETMSSLCPGKPWQTKLSSAGLVYLHFGRKLLAQLLGTSEEDSVVD  
 20 TIYDKMYENFVEEVDVDNGISQWAEGEPRYAMTTTLSARVARLNPTWNQPN  
 QDTEAGFRRAMDVLVQEEFLQRLNFYQHSWLPARALVEEALAQRFKVDSSGEI  
 VELAKGGCPWKEHLYHLESELSPKVAITFVIYTDQAGQWRVQCVPEPHSFQS  
 RLPLPEPWRLDKALDQVSGIPGCIFVHASGFIGGHHHTREGALNMARATLAQ  
 RPAPVPLANAVVQ

25

**SEQ ID NO: 40**

**Figure 16- Partial Amino Acid Sequence (mAK044679(668))**

MSSQSMKLPPSNSALPNQALGSIAGLTQNLNSVRQNGNPNMFGVGNTAAQ  
 30 PRGMQQPPAQPLSSSQPNLRAQVPPPLSPQVPVSLKYAPNNGGLNPLFGPQ  
 QVAMLNQLSQLNQLSQISQLQRLLAQQQRAQSQRSAPSANRQQQDQQGRPL  
 SVQQQMMMQQSRQLDPSLLVKQQTTPPSQQPLHQPAMKSFLDNVMPHTTPELQ  
 KGSPVNAFNSNFIPLNSNLNVNMDMNSIKEPQSRLRKWTTVDSMSVNTSLD  
 QNSSKHGAISSGFRLEESPFVYPYDFMNSSTSPASPPGSIGDGWPRAKSPNGSSS  
 35 VNWPPEFRPGEPWKGYPNIDPETDPYVTPGSVINSLSINTVREVDHLRDRNSG  
 SSSSLNTTLPSTSAWSSIRASNYNVPLSSTAQSTSARNSDSKLTWSPGSVTNTS  
 LAHELWKVPLPPKNITAPSRPPPGLTGQKPPLSTWDNSPLRVGGGWGNSDAR  
 YTPGSSWGESSGRITNWLVLKNLTPQIDGSTLRITLCMQHGPLITFHLNPHG  
 NALVRYSSKEEVVKAQKSLHMCVLGNTTILAEFASEEEISRFFAQSQSLTPSPG  
 40 WQSLGSSQSRLGSLDCSHSFSSRTDVNHWNAGLSGANCGDLHGTSLWGTP  
 HYSTSLWGPPSSDPRGISSPINAFLSVDHLGGGGESM

**SEQ ID NO: 41**

**Figure 17- Full-length Amino Acid Sequence (RS21C6)**

45

MSVAGGEIRGDTGGEDTAAPGRFSFSPEPTLEDIRRLHAEFAAERDWEQFHQP  
 RNLLLALVGEVGEAELFQWKTDGEPGPQGWSRERAAALQEELSDVLIYLV  
 LAARCRVDLPLAVLSKMDINRRRYPAHLARSSSRKYTELPHGAISEDQAVGPA  
 DIPCDSTGQTST

50

**SEQ ID NO: 42**

**Figure 18- Full-length Amino Acid Sequence (KIAA0562) (SEQ ID NO: 42)**

5   MPHKIGFVVVSSSGHEDGFSARELMIHAPT VSGWRSRFCQFPQEIVLQMVER  
CRIRKLQLLAHQYMISSKIEFYISESLPEYFAPYQAERFRRLGYVSLCDNEKTG  
CKARELKS VYVDAVGQFLKLIFHQNHVNKYNIYNQVALVAINIIGDPADFSDE  
SNTASREKLIDHYLGHNSEDPALEGTYARKSDYISPLDDLAFDMYQDPEVAQI  
IRKLDERKREAVQKERYDYAKKLKQAIADLQKVGERLGRYEVEKRCAVEKE  
10   DYDLAKEKKQQMEQYRAEVYEQLELHSLDAELMRRPFDLPQLPARSGSPC  
HQPMPSLPQLEERG TENQFAEPFLQEKPSYSLTISPQHSADVPLL PATD PHP  
KINAE SLPYDERPLPAIRKHYGEAVVEPEMSNADISDARRGGMLGEPEPLTEK  
ALREASSAIDVLGETLVAEAYCKTWSYREDALLALSKKLMEMPVGTPKEDL  
KNTLRASVFLVRRRAIKDIVTSVFQASLKLKMIITQYIPKHKLSKLETAHCVER  
15   TIPVLLTRTDSSARLRVTAANFIQEMALFKEVKSLQIIPSYLVQPLKANSSVH  
LAMSQMGLLARLLKDLGTGSSGFTIDNVMKFSVSALEHRVYEVRETAVRIIL  
DMYRQHQASILEYLPDDSNTRRNILYKTIFEGFAKIDGRATDAEMRARRKA  
ATEEAEKQKKEEIKALQGQLAALKEIQAEVQEKESDAVKPKNQDIQGGKAAP  
AEALGIPDEHYLDNLCIFCGERSESFTEEGLDLHYWKHCLMLTRCDHCKQVV  
20   EISLTHELLTECDKKDGF GKCYRCSEAVFKEELPRHIKHKDCNPAKPEKLAN  
RCPLCHENFSPGEEAWKAHLMGPAGCTMNL RKTHILQKAPALQPGKSSAVA  
ASGPLGSKAGSKIPTPKGGLSKSSSRTYAKR

**SEQ ID NO: 43**

**25   Figure 19-Full-length Amino Acid Sequence (COPB)**

MTAAENVCYTLINVPMDSEPPSEISLKN DLEKGDVKS KTEALKKVIIMILNGE  
KLPGLLMTIIRFVLPLQDHTIKKLLL VFW EIVPKTTPDGRLLHEMILVCDAYRK  
DLQHPNEFIRGSTLRFLCKLKEAELLEPLMPAIRACLEHRHSYVRRNAVLAITY  
30   IYRNFEHLIPDAPELIHDFLVNEKDASCKRNAFMMLIHADQDRALDYLSTCID  
QVQTFGDILQLVIVELIYKVCHANPSEARFIRCIYNLLQSSSPAVKYEAAGTL  
VTLSAPTAKAAAQCYIDLIKESDNNVKLIVLDR LIELKEHPAHERVLQDLV  
MDILRVLSTPDLEVRKKT LQLALDLVSSRNVEELVIVLKKEVIKTNNVSEHED  
TDKYRQLLVRTLHSCSVRFPDMAANVIPVLMEFLSDNNEAAAADVLEFVREA  
35   IQRFDNLRMLIVEKM LEVFHAIKSVKIYRGALWILGEYCSTKEDIQSVMT EIRR  
SLGEIPIVESEIKKEAGELKPEEEITVGPVQKLVT EMGTYATQSALSSSRPTKKE  
EDRPPLRGFLLDGDF FVAASLATT LTKIALRYVALVQEKKKQNSFVAEAMLL  
MATILHLGKSSLPKKPITDDDVDRI SLCLKVLSECSPLMNDIFNKECRQSLSHM  
LSAKLEEEKLSQKKESEKRNVTVPDDPISFMQLTAKNEMNCKEDQFQLSLL  
40   AAMGNTQRKEAADPLASKLNKVTQLTGFS DPVYAEAYVHV NQYDIVLDVLV  
VNQTSDTLQNCTLELATLGDLKLVEKPSPLTLAPHDFANIKANVKVASTENGI  
IFGNIVYDVSGAASDRNCVVLSDIHIDIMDYIQPATCTDAEFRQMWA EFEWEN  
KVTVNTNMVDLNDYLQHILKSTNMKCLTPEKALSGYCGFMAANLYARSIFG  
EDALANVSIEKPIHQGPDAAVTGHIRIRAKSQGMALSLGDKINLSQK KTSI  
45

**SEQ ID NO: 44**

**Figure 20- Full-length Amino Acid Sequence (MYH7)**

50   MGDSEMAVFGAAAPYLKSEKERLEAQTRPFDLKKDVFPDDKQEFVKAKI  
VSREGGKVTAET EYGKTVTVKEDQVMQQNPPKFDKIEDMAMLTFLHEPAVL

YNLKDRYGSWMIYTYSGLFCVTNPNYKWLVPVYTPEVVAAAYRGKKRSEAPPH  
 IFSISDNAYQYMLTDRENQSILITGESGAGKTVNTRVIQYFAVIAAIGDRSKK  
 DQSPGKGTLEDQIIQANPALEAFGNAKTVRNDNSSRFGKFIRIHFGATGKLAS  
 ADIETYLLEKSRVIFQLKAERDYHIFYQILSNKKPELLDMLLITNNPYDYAFISQ  
 5 GETTVASIDDAEELMATDNAFDVLGFTSEEKNSMYKLTGAIMHFGNMKFKL  
 KQREEQAEPDGTTEEADKSAYLMGLNSADLLKGLCHPRVKVGVNEYVTKGQN  
 VQQVIYATGALAKAVYERMFNWMVTRINATLETQKPRQYFIGVLDIAGFEIF  
 DFNSFEQLCINFTNEKLQQFFNHMHMFVLEQEEYKKEGIEWTFIDFGMDLQACI  
 DLIEKPMGIMSILEEECMFPKATDMTFKAKLFDNHLGKSANFQKPRNIKGKPE  
 10 AHFSLIHYAGIVDYNIGWLQKNKDPLNETVVGLYQKSSLKLLSTLFANYAGA  
 DAPIEKGGKAKKGSSFQTVSALHRENLNKLMTNLRSTHPPHVRCIIPNETKS  
 PGVMDNPLVMHQLRCNGVLEGIKCRKGFPNRILYGDFRQRYRILNPAAIPEG  
 QFIDSRKGAEKLLSSLDIDHNQYKFGHTKVFFKAGLLGLEEMRDERLSRIITR  
 IQAQSRGVLARMEYKKLLERRDSLLVIQWNIRAFMGVKNWPMKLYFKIKP  
 15 LLKSAEREKEMASMKEEFTRLKEALEKSEARRKELEEKMVSLLQEKNDLQLO  
 VQAEQDNLADAEERCDQLIKNKIQLEAKVKEMNERLEDEEEMNAELTAKKR  
 KLEDECSELKRDIDDLELTAKVEKEKHATENKVKNLTEEMAGLDEIIAKLTK  
 EKKALQEAHQALDDLQAEEDKVNTLTAKVKLEQQVDDLEGSLEQEKKV  
 RMDLERAKRKLEGLKLTQESIMDLENDKQQLDERLKKKDFELNALNARIED  
 20 EQALGSQLOKKLKLQARIEELEEELESERTARAKVEKLRSLSRELEEISERL  
 EEAGGATSVQIEMNKKREAEFQKMRRDLEEATLQHEATAAALRKKHADSV  
 ELGEQIDNLQRVKQKLEKEKSEFKLELDDVTSNMEQIIKAKANLEKMCRTLE  
 DQMNEHRSKAEETQRSVNDLTSQRAKLQTENGELSRQLDEKEALISQLTRGK  
 LTYTQQLEDLKRQLEEEVKAKNALAHALQSARHDCDLLREQYEEETEAKAE  
 25 LQRVLSKANSEVAQWRTKYETDAIQRTEELEEAKKKLAQRLQEAEEAVEAV  
 NAKCSSLEKTKHRLQNEIEDLMVDVERSNAALDCKQRNFDKILAEWKQ  
 KYEESQSELESSQKEARSLSTELFKLNAYEESLEHLETFKRENKNLQEEISDL  
 TEQLGSSGKTIHELEKVRKQLEAEKMELQSALEEAASLEHEEGKILRAQLEF  
 NQIKAEIERKLAEKDEEMEQAKRNHLRVVDSLQTSLSLDAETRSRNEALRVKKK  
 30 MEGDLNEMEIQLSHANRMAAEAQKQVKSLSLLKDTQIQLDDAVRANDDLK  
 ENIAIVERRNLLQAELEELRAVVEQTERSRLAEQELIETSERVQLLSQNTS  
 LINQKKKMDADLSQLQTEVEEAQVECRNAEEKAKKAITDAAMMAEELKKEQ  
 DTS AHLERMKKNMEQTIKDLQHRLDEAEQIALKGGKKQLQKLEARVRELEN  
 ELEAEQKRNAESVKGMRKSERRIKELTYQTEEDRKNLLRLQDLVDKLQLKV  
 35 KAYKRQAEAEQANTNLSKFRKVQHELDEAEERADIAESQVKNLRAKSRDI  
 GTKGLNEE

**SEQ ID NO: 45**

**Figure 21- Partial Amino Acid Sequence (KIAA1633)**

40 KVEELNSEIEKLSAAFAKAREALQKAQTQEFQGSSEDYETALSGKEALSAAALRS  
 QNLTKSTENHRLRRSIKKITQELSDLQQERERLEKDLEEAHREKSKGDCTIRDL  
 RNEVEKLRNEVNEREKAMENRYKSLLSESNNKKLHNQEQQVIKHLTESTNQKD  
 VLLQKFNEKDLEVIQQNCYLMAAEDLELRSEGLITEKCSSQQPPGSKTIFSKEK  
 45 KQSSDYEELIQVLKKEQDIYTHLVKSLQESDSINNLAELNKFALRKQLEQD  
 VLSYQNLRKLTLEEQISEIRRREEESFSLYSDQTFYLSICLEENNRFQVEHFSQEE  
 LKKKVSDLIQLVKELYTDNQHLKKTIFDLSCMGFGNGFPDRLASTEQTTELLA  
 SKEDEDTIKIGEDDEINFLSDQHLQQSNEIMKDLKGGCKNGYLRHTESKISDC  
 DGAHAPGCLEEGAFINLLAPLFNEKATLLLESRPDLLKVVRELLLGQLFLTEQ  
 50 EVSGEHLDGKTEKTPKQKGELVHFVQTNFSKPHDELKLSCEAQLVKAGEVP

KVGLKDASVQTVATEGDLLRFKHEATREAWEEKPINTALSAEHRPENLHGVP  
 GWQAALLSLPGITNREAKKSRLPILIKPSRSLGNMYRLPATQEVVTQLQSQILE  
 LQGELKEFKTCNKQLHQKLILAEAVMEGRPTPDKTLLNAQPPVGAAYQDSPG  
 EQKGIKTTSSVWRDKEMDSQQRSEIDSEICPPDDLASLPCKENPEDVLSPT  
 5 SVATYLSSKSQPSAKVSVMGTDQSEINTSNETEYLKQKIHDLETELEGYQNFI  
 FQLQKHSQCSEAIITVLCGTEGAQDGLSKPKNGSDGEEMTFSSLHQVRYVKH  
 VKILGPLAPEMIDSRVLENLKQQLLEEYKQLQKEQNLNMQLFSEIHNLQNKFR  
 DLSPPRYDSLVSQARELSLQRQKIDGHGICVISRQHMNTMIKA FEELLQAS  
 DVDYCVAEGFQEQLNQCAELLEKLEKFLNGKSVGVEMNTQNELMERIEED  
 10 NLTYQHLLPESPEPSASHALSDYETSEKSFFSRDQKQDNETEKTSMVNVSFSQ  
 DLLMEHIQEIRTLRKRLEESIKTNEKLRKQLERQGSEFVQGSTSIFASGSELHSS  
 LTSEIHFLRKQNQALNAMLIKGSRDKQKENDKLRESLSRKTVSLEHLQREYAS  
 VKEENERLQKEGSEKERHNQQLIQEVRCSGQELSRVQEELKLRQQLLSQNDK  
 LLQSLRVELKAYEKLDEEHRRLREASGEGWKGQDPFRDLHSLLEIQA RLQ  
 15 LERSIETSSTLQSRKEQLARGAEKAQEGALTLAVQAVSIPEVPLQPKHDGD  
 KYPMESDNSFDLFDSSQAVTPKSVSETPPLSGNDTDSLSCDSGSSATSTPCVSR  
 LVTGHHLWASKNGRHVLGLIEDYEALLKQISQGQRLLAEMDIQTQEAPSSS  
 QELGTKGPHPAPLSKFVSSVSTAKLTLEEAYRRLKLLWRVSLPEDGQCPLHCE  
 QIGEMKAEVTKLHKKLFEQEKQLQNTMKLLQLSKRQEKVIFDQLVVTHKILR  
 20 KARGNLELRPGGAHPGTCSPSRPGS

**SEQ ID NO: 46**

**Figure 22- Partial Amino Acid Sequence (KIAA1288(1191))**

25 THAYNPKSPPTQNSSASSVNWNSANPDDMVVDYETDPAVVTGENISLSLQGV  
 EVFGHEKSSSDFISKQVLDMHKDSICQCPALVGTEKPKYLQHSCHSLEAVEGO  
 SVEPSLPFVWKPNDNLNCAGYCDALNQTDFMTVDKVNCTFISHHAIGKSQ  
 SFHTAGSLPPTGRRSGSTSSLSYSTWTSSHSDKTHARETTYDRESFENPQVTPS  
 EAQDMTYTAFSDVVMQSEVFDIGNQCACSSGKVTSEYTDGSQQRLVGEK  
 30 ETQALTPVSDGMEVPNDALQEFFCLSHDESNSEPHSQSSYRHKEMGQNLRE  
 TVSYCLIDDECPLMVPAFDKSEAQVLNPEHKVTETEDTQMVSKGKDLGTQN  
 HTSELILSSPPGQKVGSSFGLTWDANDMVISTDKTMCMTSTPVLEPTKVTFVS  
 PIEATEKCKKVEKGNRGLKNIPDSKEAPVNLCKPSLGKSTIKTNTPIGCKVRKT  
 EIISYPRPNFKNVKAKVMSRAVLQPKDAALSKVTPRPQQTASSPSSVNSRQQ  
 35 TVLSRTPRSDLNADKKAELINKTHKQQFNKLITSQAVHVTTHSKNASHRVPR  
 TTSAVKSNQEDVDKASSSNSACETGSVSALFQKIKGILPVKMESAECLEMTYV  
 PNIDRISPEKKGEKENGTSMEKQELKQEIIMNETFEYGSFLGSAKTTTTSGRN  
 ISKPDSCGLRQIAAPKAKVGPPVSCLRRNSDNRNPSADRAVSPQIRRVSSSSG  
 NAAVIKYEEKPPKPAFQNGSSGSFYKPLVSRHVHLMKTPPKGPSRKNLFTA  
 40 LNAVEKSRQKNPRSLCIQPQTAPDALPPEKTLELTQYKTKCENQSGFILQLKQ  
 LLACGNTKFEALTVVIQHLLSEREEALKQHKTLSQELVNLRGELVTASTCEK  
 LEKARNELQTVYEAFFVQQHQAETERENRLKEFYTREYEKL RDTYIEEAKEY  
 KMQLQE QFDNLNAAHETSKLEIEASHSEKLELLKKAYEASLSEIKKGHEIEKK  
 SLEDLLSEKQESLEKQINDLKSENDALNEKLSKSEEQKRRAREKANLKNPQIMY  
 45 LEQELESKAVLEIKNEKLHQQDIKLMKMEKLVNNTALVDKLRFRQENEE  
 LKARMDKHMAISRQLSTEQAVLQESLEKESKVNKRLSMENEELLWKLHNGD  
 LCSPKRSPTSSAIPLQSPRNSGSFPSPSISPR

**SEQ ID NO: 47**

**Figure 23- Full-length Amino Acid Sequence (mVCL)**

5 MPVFHTRTIESILEPEAAQQISHLVIMHEEGEVDGKAIPDLTAPVAAVQAAVSNL  
VRVGKETVQTTEDQILKRDMPPAFIKVENACTKLVQAAQMLQSDPYSPARD  
YLIDGSRGILSGTSDLLLTFDEAEVRKIIRVCKGILEYLTVAEVVETMEDLVTY  
TKNLGPGMTKMAKMIDERQQELTHQEHRVMLVNSMNTVKELLPVLISAMKI  
FVTSKNSKNQGIEEALKNRNFTVEKMSAEINEIIRVLQLTSWDEDAWASKDTE  
10 AMKRALASIDSKLNQAKGWL RDPNASPGDAGEQAIRQILDEAGKV GELCAG  
KERREILGTCKMLGQMTDQVADLRARGQGASPVAMQKAQQVSQGLDVVTA  
KVENAARKLEAMTNSKQSIKKIDAAQNWLADPNGGPEGEEQIRGALAEAR  
KIAELCDDPKERDDILRSLGEIAALTSKLGDLRRQGKGDSPEARALAKQVATA  
LQNLQTKTNRAVANSRPAKAAVHLEGKIEQARRWIDNPTVDDRGVGQAAIR  
15 GLVAEGHRLANVMMGPYRQDLLAKCDRVDQLTAQLADLAARGE GESPQAR  
ALASQLQDSLKDLKAQM QEAMTQEVSDVFSDTTTPIKLLAVAATAPPDAPNR  
EEVFDERAANFENHSGRLGATAEKAAAVGTANKSTVEGIQASVKTARELTPQ  
VISAARILLRNPQNQAA YEHFETMKNQWIDNVEKMTGLVDEAIDTKSLLDAS  
EEAIKKDLCKVAMANIQQMLVAGATSIARRANRILLVAKREVEN SEDPK  
20 FREAVKAASDELSKTISPMVMDAKAVAGNISDPDLQKSFLDSGYRILGAVAK  
VREAFQPQEPDFPPPPPDLEQLRLTDELAPPKPPLPEGEVPPPRPPPPPEEKDEEF  
PEQKAGEVINQPMMAARQLHDEARKWSSKGNDIIAAAKRMALLMAEMSR  
LVRGGSGTKRALIQCAKDIAKASDEVTRLAKEVAKQCTDKRIRTNLLQVCERI  
PTISTQLKILSTVKATMLGRTNISDEESEQATEMLVHNAQNLMQSVKETVREA  
25 EAASIKIRTDAGFTLRWVRKTPWYQ

**SEQ ID NO: 48**

**Figure 24- Partial cDNA Nucleotide Sequence Encoding the Amino Acid  
Sequence of SEQ ID NO: 6 (807 nucleotides in total)**

30 5'-GGGCACGACTCCAGCCTCTTCGAGGACAGAAGCGACCATGACAAACAC  
AAGGACAGAAAACGGAAAAAGAGGAAGAAAGGCGAGAAGCAGGCTCCC  
GGGGAAGAGAAGGGGAGAAAACGGAGAAGAGTCAAGGAGGATAAAAAG  
AAGCGGGATCGAGACCGTGCAGAGAATGAGGTGGACAGAGATCTCCAGT  
35 GTCATGTCCCTATAAGATTAGACTTACCTCCTGAGAAGCCTCTTACAAGCT  
CGTTAGCCAAACAAGAAGAAGTAGAACAGACACCCCTTCAGGAAGCTTTG  
AATCAGCTCATGAGACAATTGCAAAGTACCATGAAAGAAAAGATCAAGA  
ATAACGACTACCAAGTCCATAGAAGAACTAAAGGATAACTTCAAGCTAATG  
TGTAATAATGCAATGATTTACAATAAGCCAGAGACCATTTATTATAAAGCT  
40 GCAAAGAAGCTGTTGCACTCAGGGATGAAAATTCTCAGTCAGGAGAGAAT  
TCAGAGCCTGAAGCAGAGTATAGACTTCATGTCAGACTTGCAGAAAAC TC  
GGAAGCAGAAAGAACGAACAGATGCCTGTCAGAGTGGGGAGGACAGCGG  
CTGCTGGCAGCGCGAGAGGGAAGACTCTGGAGATGCTGAAACACAGGCC  
TTCAGAAGCCCCGCTAAGGACAATAAAAAGGAAAGACAGAGATGTGCTTG  
45 AAGACAAATGGAGAAGCAGCAACTCAGAAAGGGAGCATGAGCAGATTGA  
GCGCGTTGTCCAGGAGTCAGGAGGCAAGCTAACACGGCGGCTGGCAAAC  
AGTCAGTGTGAATTTGAA-3'

**SEQ ID NO: 49**

**Figure 25- Partial cDNA Nucleotide Sequence Encoding the Amino Acid Sequence of SEQ ID NO: 10 (348 nucleotides in total)**

5  
5'-GCCATCGTGGAGCGCAGAGCCAAACCTGCTGCGGGCTGAGATTGAG  
GAGCTGCGGGCCACGCTGGAGCAGACGGAGAGGAGCAGGAAGATTG  
CAGAGCAGGAGCTGCTGGACGCCAGTGAGCGCGTGACGCTCCTCCAC  
ACCCAGAACACGAGCCTCATCAACACCAAGAAGAAGCTGGAAAATGA  
10 TGT TTCACAGCTGCAGAGTGAAGTGAAGAAGTGATTCAAGAGTCAC  
GCAATGCAGAAGAGAAGGCTAAGAAAGCCATTACTGATGCCGCCATGA  
TGGCGGAGGAGCTGAAGAAGGAGCAGGACACCAGCGCCCACCTGGA  
GCGGATGAAGAAGAACATGGAG-3'

15 **SEQ ID NO: 50**

**Figure 26- Partial cDNA Nucleotide Sequence Encodin**

5'-GAAAAACAAGAGCTGAAACAAGAGATTATGAATGAGACTTTTGAATAT  
GGTCTCTGTTTTTGGGCTCTGCTTCAAAAACAACGACCACCTCAGGTAGG  
20 AATATATCCAAGCCTGACTCCTGCGGTTTGAGGCAAATAGCTGCTCCAAA  
AGCCAAAGTGGGGCCCCCTGTTTCCTGTTTGAGGCGGAACAGTGACAATA  
GAAATCCCAGTGCTGATCGAGCCGTATCTCCTCAGAGGATCAGGCGTGTG  
TCCAGTTCCTGCTGGTAATGCCGCTGTCATCAAGTATGAGGAGAAACCTCC  
AAAACCAGCATTTCAGAATGGTTCCTCAGGATCCTTTTATTTGAAGCCTTT  
25 GGTATCCAGGGCTCATGTTCACTTGATGAAAACCTCCAAAAGGTCCTTC  
GAGAAAAAATTTATTTACAGCTCTTAATGCAGTTGAAAAGAGCAAGCAAAA  
AGAATCCTCGAAGCTTATGTATCCAGCCACAGACAGCTCCCGATGCGCTG  
CCCCCTGAAAAAACACTTGAATTGACGCCATATAAAACAAAATGTGAAAA  
CCAAAGTGGAATTTATCCTGCAGCTCAAGCAGCTTCTTGCCCTGTGGTAATAC  
30 CAAGTTTGAGGCATTGACAGTTGTGATTGAGCACCTGCTGTCTGAGCGGG  
AGGAAGCACTGAAACAACACAAAACCCTATCTCAAGAACTTGTTAACCTC  
CGGGGAGAGCTAGTCACTGCTTCAACCACCCGTGAGAAATTAGAAAAAGC  
CAGGAATGAGTTACAAACAGTGTATGAAGCATTCGTCCAGCAGCACCAGG  
CTGAAAAAACAGAACGAGAGAAATCGGCTTAAAGAGTTTTACACCAGGGA  
35 GTATGAAAAGCTTCGGGACACTTACATTGAAGAAGCAGAGAAGTACAAA  
ATGCAATTGCAAGAGCAGTTTGGAACCTTAAATGCTGCGCATGAAACCTT  
TAAGTTGGAAATTGAAGCTAGCCACTCAGAGAACTTGAATTGCTAAAGA  
AGGCCTATGAAGCCTCCCTTTAGAAAATTAAGAAAGGCCATGAAATAGAA  
AAGAAATCGCTTGAAGATTTACTTTCTGAGAAGCAGGAATCGCTAGAGAA  
40 GCAAATCAATGATCTGAAGAGTGAAAATGATGCTTTAAATGAAAAATTGA  
AATCAGAAGAACAAAAAAGAAGAGCAAGAGAAAAAGCAAATTTGAAAA  
ATCCTCAGATCATGTATCTAGAACAGGAGTTAGAAAGCCTGAAAGCTGTG  
TTAGAGATCAAGAATGAGAACTGCATCAACAG

45 **SEQ ID NO: 51**

**FHOS (251-500 AA)**

TGAPPWANLVSIEEKNGADPELLVYTVTLINKTLAALPDQDSFYDVTDALE  
QQGMDTLVQRHLGTAGTDVDLRTQLVLYENALKLEDGDIEEAPGAGRRER  
50 RKPSSEEGKRSRRSLEGGGCPARAPEPGPTGPASPVGPTSSTGPALLTGPASSP

VGPPSGLQASVNLFTISVAPSADTSSERSIYKARFLENVAAAETEKQVALAQ  
GRAETLAGAMPNEAGGHPDARQLWDSPETAPAARTPQSPA

**SEQ ID NO: 52**

**5 FHOS (501-750 AA)**

PCVLLRAQRSLAPEPKEPLIPASPKAEPIWELPTRAPRLSIGDLDFSDLGEDEDQ  
DMLNVESVEAGKDIPAPSPPLLLSGVPPPPPLPPPPPIKGPFPPLPLAAPLP  
HSVPDSSALPTKRKTVKLFWRDVKLGGHGVSSASRFGPCATLWASLDPVSV  
DTARLEHLFESRAKEVLPSKKAGEGRRTMTTVLDPKRTNAINIGLTTLPPVHV  
10 IKAALLNFDEFAVSKDGIKLLTMMPTTEERQKIE

**SEQ ID NO: 53**

**FHOS (652-810 AA)**

TLWASLDPVSVDTARLEHLFESRAKEVLPSKKAGEGRRTMTTVLDPKRTNAI  
15 NIGLTTLPPVHVVIKAALLNFDEFAVSKDGIKLLTMMPTTEERQKIEGAQLAN  
PDIPLGPAENFLMTLASIGGLAARLQLWAFKLDYDSMEREIAEPLFDLKVGM  
Q

**SEQ ID NO: 54**

**20 FHOS (840-954 AA)**

ELSYLEKVSVDKDTVRRQSLHHLCSLVLQTRPESSDLYSEIPALTRCAKVDF  
EQLTENLGQLERRSRAAEESLRSLAKHELAPALRARLTHFLDQCARRVAMLR  
IVHRRVCNRF

**25 SEQ ID NO: 55**

mBC028274(908) (BC028274.1) 199-576

DRKQHLDKTWADAEDLNSQNEAELRRQVEERQQETEHVYELLGNKIQLLQE  
EPRLAKNEATEMETLVEAEKRCNLELSERWTNAAKNREDAAGDQEKPDQYS  
30 EALAQRDRRIEELRQSLAAQEGLEQLSQEKQQLLHLEEPASMEVQPVPKG  
LPTQQKPD LHETPTTQPPVSESHLAELQDKIQQTEATNKILQEKLN DLSC ELKS  
AQESSQKQD TTIIQSLKEM LKSRESETEELYQVIEGQNDTMAKLREMLHQS QL  
GQLHSSEGIAPAQQQVALLDLQSALFCSQLEIQRLQRLVRQKERQLADGKRC  
VQLVEAAAQEREHQKEAAWKHNQELRKALQHLQGELHKSQQLHVLEAEK  
35 YNEIRTQGQNIQHLSH

**SEQ ID NO: 56**

mBC028274(908) (BC028274.1) 250-565

EPRLAKNEATEMETLVEAEKRCNLELSERWTNAAKNREDAAGDQEKPDQYS  
EALAQRDRRIEELRQSLAAQEGLEQLSQEKQQLLHLEEPASMEVQPVPKG  
LPTQQKPD LHETPTTQPPVSESHLAELQDKIQQTEATNKILQEKLN DLSC ELKS  
AQESSQKRD TTIIQSLKEM LKSRESETEELYQVVEGQNDTMAKLREMLHQS QL  
GQLHSSEGIAPAQQQVALLDLQSALFCSQLEIQRLQRLVRQKERQLADGKRC  
45 VQLVEAAAQEREHQKEAAWKHNQELRKALQHLQGELHKSQQLHVLEAEK  
YNETR

**SEQ ID NO: 57**

mBC026864(777) 256-417

AAVLGEADDGNLDLDMKSGLENTAALDNQPKGALKKLIYAAKLNASLKALE  
GERNQVYTQLSEVDQVKEDLTEHIKSLESKQASLQSEKTEFESESQKLQQKLK  
VITELYQENEMKLHRKLTVEENYRLEKEEKLSKVDEKISHATEELETQRQRAK  
DLEEE

5

**SEQ ID NO: 58**  
**m5730504C04Rik 127-407**

10 KQTKVEGELEEMERKHQQLLEEKNILAEQLQAETELFAEAEEMRARLAACK  
QELEEILHDLESRVEEEEERNQILQNEKKKMQAHIQDLEEQLDEEEGARQKLQ  
LEKVTAEAKIKKMEEEVLLLEDQNSKFIKEKKLMEDRIAECSSQLAEEEEKAK  
NLAKIRNKQEVMSDLEERLKKEEKTRQELEKAKRKLDGETTDLQDQIAELQ  
AQVDELKVQLTKKEEELQGALARGDDETLHKNNALKVARELQAQIAELQED  
IESEKASRNKAQKQKRDLEE

15

**SEQ ID NO: 59**  
**mMYH9 853-1191**

20 ELTKVREKYLAENRLTEMETMQSQLMAEKLQLQEQLQAETELCAEAEELR  
ARLTAKEQELEEICHDLERVEEEEERCQYLQAEKKKMQQNIQELEEQLEEEE  
SARQKLQLEKVTTEAKLKKLEEDQIIMEDQNCKLAKEKKLLEDRAEFTTNL  
MEEEEKSKSLAKLKNKHEAMITDLEERLRREEKQRQELEKTRRKLEGDSTD  
SDQIAELQAQIAELKMQLAKKEEESQAALARVEEEAAQKNMALKKIRELETQ  
ISELQEDLESERASRNKAQKQKRDLGEELEALKTELEDTL DSTAAQQELRSKR  
25 EQEVSILKKTLEDEAKTHEAQIQGMR

**SEQ ID NO: 60**  
**mp116Rip 943-1024**

30 IYTELSIAKAKADCDISRLKEQLKAATEALGEKSPEGTTVSGYDIMKSKSNPDF  
LKKDRSCVTRRLRNIRSKSVIEQVSWDN

**SEQ ID NO: 61**  
**TPM3 157-243**

35

KNVTNNLKSLEAQAEKYSQKEDKYEEEIKILTDKLKEAETRAEFAERSVAKLE  
KTIDDLEDELYAQKLEYKAISEELDHALNDMTSI

**SEQ ID NO: 62**  
**MYH6 876-1113**

40

EEKMVSLQEKNDLQLQVQAEQDNLNDAEERCDQLIKNKIQLEAKVKEMNE  
RLEDEEEMNAELTAKKRKLEDECSELKKDIDDLELTLAKVEKEKHATENKVK  
NLTEEMAGLDEIIAKLTKEKKALQEAHQALDDLQVEEDKVNSLSKSKVKLE  
45 QQVDDLEGSLEQEKKVRMDLERAKRKLEGDLKLTQESIMDLENDKLQLEEK  
LKKKEFDINQQNSKIEDEQALALQLQKKLKKNN

50

**SEQ ID NO: 63**  
**mMBLR 41-209**

5 APAAGEEGPASLGQAGAAGCSRSRPPALEPERSLGRLRGRFEDYDEELEEEEE  
MEEEEEEEEEMSHFSLRLESGRADSEDEEERLINLVELTPYILCSICKGYLIDAT  
TITECLHTFCKSCIVRHFYYSNRCPKCNIVVHQTQPLYNIRLDRQLQDIVYKLV  
INLEERE

**SEQ ID NO: 64**  
**ZFP144 7-304**

15 IKITELNPHLMCALCGGYFIDATTIVECLHSFCKTCIVRYLETNKYCPMCDVQ  
VHKTRPLLSIRSDKTLQDIVYKLVPGLFKDEMRRRDFYAAAYPLTEVPNGSNE  
DRGEVLEQEKGALGDDEIVSLSIEFYEGVRDREEKKNLTENGDDGDEKTGVR  
FLRCPAAMTVMHLAKFLRNKMDVPSKYKVEILYEDEPLREYYTLMDIAYIYP  
WRRNGPLPLKYRVQPACKRLTLPTVPTPSEGNTNTSGASECESVSDKAPSPATL  
PATSSSLPSPATPSHGSPSSHGPPATHPTSPTPPS

**SEQ ID NO: 65**  
**Figure 36- Full-length Amino Acid Sequence (ZNF144(294)) (SEQ ID NO: 65)**

25 MHRTRITKITELNPHLMCALCGGYFIDATTIVECLHSFCKTCIVRYLETNKYCP  
MCDVQVHKTRPLLSIRSDKTLQDIVYKLVPGLFKDEMRRRDFYAAAYPLTEVP  
NGSNEDRGEVLEQEKGALSDDIVSLSIEFYEGAGDRDEKKGPLENGDGDKE  
KTGVRFLRCPAAMTVMHLAKFLRNKMDVPSKYKVEVLYEDEPLKEYYTLM  
DIAYIYPWRRNGPLPLKYRVQPACKRLTLATVPTPSEGNTNTSGASESSGATTAA  
NGGSLNCLQTPSSTSRRGRKMTVNGAPVPPLT

**SEQ ID NO: 66**  
**14-3-3epsilon 44-255**

35 LLSVAYKNVIGARRASWRIISSIEQKEENKGGEDKLKMIREYRQMVETELKLI  
CCDILDVLDKHLIPAANTGESKVFYYKMGDYGHRYLAEFATGNDRKEAAEN  
SLVAYKAASDIAMTELPPTHPIRLGLALNFSVFYYEILNSPDRACRLAKAAFD  
DAIAELDTLSEESYKDSTLIMQLLRDNLTWTSDMQGDGEEQNKEALQDVED  
ENQ

**SEQ ID NO: 67**  
**14-3-3epsilon 89-249**

45 VETELKLICCDILDVLDKHLIPAANTGESKVFYYKMGDYGHRYLAEFATGND  
RKEAAENSLVAYKAASDIAMTELPPTHPIRLGLALNFSVFYYEILNSPDRACRL  
AKAAFDDAIAKLDLTLSEESYKDSTLIMQLLRDNLTWTSDMQGDGEEQNKE  
ALQD

**SEQ ID NO: 68**  
**14-3-3epsilon 84-238**

5 EYRQMVETELKLICCDILDVLDKHLIPAANTGESKVFYYKMKGDYHRYLAEF  
ATGNDRKEAAENSLVAYKAASDIAMTELPPTHPIRLGLALNFSVFYYEILNSP  
DRACRLAKAAFDDAIAELDTLSEESYKDSTLIMQLLRDNLTLWTSDMQGD

**SEQ ID NO: 69**  
**Figure 38- Partial Amino Acid Sequence (BF672897(87)) (SEQ ID NO: 69)**

10 REASHPLCTGPAQAGLAHRCLLAALMGKRLGTGDCLWPTQLLGQWPV  
TLVCLRPLCPLMFLVLELELLPGTLQLHPPCLIPPGRPGH

**SEQ ID NO: 70**  
**mCATNB 704-871**

15 QSYLDSGIHSGATTTAPSLSGKGNPEEEDVDTSQVLYEWEQGFSQSFTQEQVA  
DIDGQYAMTRAQVRVRAAMFPETLDEGMQIPSTQFDAAHPTNVQRLAEPSQML  
KHAVVNLINYQDDAELATRAIPELTKLLNDEDQVVVNKAAMVMVHQLSKKEAS  
20 RHAIMRSPQMVSIVRTMQNTNDVETARCTAGTLHNLSHHREGLLAIFKSGGI  
PALVKMLGSPVDSVLFYAITTLHNLLHQEGAKMAVRLAGGLQKMVALLNK

**SEQ ID NO: 71**  
**mCATNS 704-871**

25 KALSAIAELLTSEHERVVKAASGALRNLAVDARNKELIGKHAIPNLVKNLPGG  
QLNSSWNFSEDTVVSILNTINEVIAENLEAAKKLRETQGIEKLVLINKSGNRSE  
KEVRAAALVLQTIWGYKELRKPLEKEGWKKSDFQVNINNASRSQSSHSYDDS  
30 TLPLIDRNQ

**SEQ ID NO: 72**  
**mSWAN 1-162**

35 MAVVIRLQGLPIVAGTMDIRHFFSGLTIPDGGVHIVGGELGEAFIVFATDEDAR  
LGMMRTGGTIKGSKVTLLLSSKTEMQNMIELSRRRFETANLDIPPANASRSGPP  
PSSGMSSRVNLPATVPNSNNPSPSVVTATTSVHESNKNIQTFSTASVGTAPPSM

**SEQ ID NO: 73**  
**mSWAN 1-144**

40 MAVVIRLQGLPIVAGTMDIRHFFSGLTIPDGGVHIVGGELGEAFIVFATDEDAR  
LGMMRTGGTIKGSKVTLLLSSKTEMQNMIELSRRRFETANLDIPPANASRSGPP  
PSSGMSSRVNLPATVPNFNNPSPSVVTATTSVHESN

**SEQ ID NO: 74**  
**m2300003P22Rik(248) 1-188**

45 KEGRREHAFVPEPFTGTNLAPSLWLHRFEVIDDLNHWDHATKLRFLKESLKG  
DALDVYNGLSQAQGDFFSVKQALLRAFGAPGEAFSEPEEVLFANSMGKGYG  
50 LKGKVGHPVVRFLVDSGAQVSVVHPALWEEVTDGDLDTLRPFNNVVKVANG

AEMKILGVWDTEISLGKTKLKAFLVANASAE

**SEQ ID NO: 75**

**mTAKEDA015 1-261, Figure 43**

5

SPYSPRGGSNVIQCYRCGDTCKGEVVRVHNNHFHIRCFTCQVCGCLAQSGF  
FFKNQEYICAQDYQQLYGTRCDSCRDFITGEVISALGRTPKCFVCSLCRKPF  
PIGDKVTFSGKEVCQTCSQSMTSSKPIKIRGPSHCAGCKEEIKHGQSLLALDK  
QWHVSCFKCQTCSVILTGEYISKDGVYPYCESDYHSQFGIKCETCDRYISGRVLE  
10 AGGKHYHPTCARCVRCHQMFTEGEEMYLGTGSEVWHPICKQAARAEKK

**SEQ ID NO: 76**

**PCNT2 2942-3134**

15

ESKDEVPGSRLHLGSARRAAGSDADHLREQQRELEAMRQRLLSAARLLTSFT  
SQAVDRTVNDWTSSNEKAVMSLLHTLEELKSDLSRPTSSQKKMAAELQFQFV  
DVLLKDNVSLTKALSTVTQEKLELSRAVSKLEKLLKHHLQKGCSPGRSERSA  
WKPDETAPQSSLRRPDPGRLPAAASEEAHTSNAKMDK

20

**SEQ ID NO: 77**

**KPNA4 107-338**

25

IDDLIKSGILPILVHCLERDDNPSLQFEAAWALTNIASGTSEQTQAVVQSNAPV  
LFLRLLHSPHQNVCEQAVWALGNIIGDGPQCRDYVISLGVVEPLLSFISPSIPIT  
FLRNVTWVMVNLCRHKDPPPPMETIQEILPALCVLIHHTDVNILDVTVWALS  
YLTDAGNEQIQMVIDSGIVPHLVPLLSHQEVKVQTAALRAVGIIVTGTDEQTQ  
VVLNCDALSHFPALLTHP

30

**SEQ ID NO: 78**

**MAPKAP1 356-480**

HRLRFTTDVQLGISGDKVEIDPVTNQKASTKFWIKQKPISIDSDLLCACDLAEE  
KSPSHAIFKLTYLSNHDKHLYFESDAATVNEIVLKVNYILESRASTARADYF  
AQKQRKLNRRRTSFSFQKE

35

**SEQ ID NO: 79**

**mTPT1 16-172**

40

DIYKIREIADGLCLEVEGKMVSRTEGAIDDSLIGGNASAEGPEGEGTESTVVTG  
VDIVMNHHLQETSFTKEAYKKYIKDYMKSLKGKLEEQKPERVKPFMTGAAE  
QIKHILANFNNYQFFIGENMNPDMVALLDYREDGVTPFMIFFKDGLEMEKC

45

**SEQ ID NO: 80**

**mAK014397(679) 441-640**

50

MKHNLELTMAEMRQSLEQERDRLIAEVKKQLELEKQQAVIDETKKRQWCAN  
CKKEAIFYCCWNTSYCDYPCQQAHWPEHMKSCTQSATAPQQEADAEASTET  
GNKSSQGNSSNTQSAPSEPASAPKEKEAPAEKSKDSSNSTLDLSGSRETPSSML  
LGSNQSSVSKRCDKQPAYTPTTTDRQPHPNYPAQKYHSRSSKAGL

**SEQ ID NO: 81**  
**mHRMT1L1 19-205**

5 EEDPVDYGCQMQLLDGAQLQLQPEEFVAIADYTATDETQLSFLRGEKILI  
LRQTTADWWGERAGCCGYIPANHLGKQLEEDPEDTWQDEEYFDSYGT  
KLHLGMLADQPRRTTKYHSVILQNKESLKDKVILDVGC GTGIISLFC AHHARPK  
AVYAVEASDMAQHTSQLVLQNGFADTITVFQ

10 **SEQ ID NO: 82**  
**HRMT1L1(241) 2-241**

ATSGDCPRSESQGEPAECSEAGLLQEGVQPEEFVAIADYAATDETQLSFLRG  
EKILILRQTTADWWGERAGCCGYIPANYVGKHVDEYDPEDTWQDEEYFGS  
15 YGTLKLHLEMLADQPRRTTKYHSVILQNKESLTDKVILDVGC GTGIISLFC AHY  
ARPRAVYAVEASEMAQHTGQLVLQNGFADIITVYQQKVEDVVLPEKVDVLV  
SEWMGTCLLKQQSSEGDASKDTTGVLDCCQTI

20 **SEQ ID NO: 83**  
**SAT(204) 1-186**

RRGRSRETNEEPPPPTVQVQGGPQREEKQKTKMAKFVIRPATAADCSDILRL  
IKELAKYEYMEEQVILTEKDLEDGFGEHPFYHCLVAEVPKEHWTPEGHSIVG  
FAMYYFTYDPWIGKLLYLEDDFFVMSDYRGFGIGSEILKNLSQVAMRRCSSM  
25 HFLVAEWNEPSINFYKRRGASDLSSEEG

**SEQ ID NO: 84**  
**BC023995(305) 1-294**

30 FCELSSPAEMANVLCNRRARLVSYLPGFCSLVKRVVNP KAFSTAGSSGSDESHV  
AAAPPDICSRTVWPDETMGPFQDQRFQLPGNIGFDCHLNGTASQKKSLVH  
KTLPDVLAEPLSSERHEFVMAQYVNEFQGNDAPEQEINSAETYFERARVEC  
AIQTCPELLRKDFESLFPEVANGKLMILTVTQKTKNDMTVWSEEVEIEREVLL  
EKFINGAKEICYALRAEGYWADFIDPSSGLAFFGPYTNNTLFETDERYRHLGF  
35 SVDDLGCCKVIRHSLWGTHVVVGSIFTNATP

**SEQ ID NO: 85**  
**BC023995(305) 72-299**

40 GPFQDQRFQLPGNIGFDCHLNGTASQKKSLVHKTLPDVLAEPLSSERHEFV  
MAQYVNEFQGNDAPEQEINSAETYFESARVECAIQTCPELLRKDFESLFPEV  
ANGKLMILTVTQKTKNDMTVWSEEVEIEREVLLK FINGAKEICYALRAEGY  
WADFIDPSSGLAFFGPYTNNTLFETDERYRHLGFSVDDLGCCKVIRHSLWGTH  
VVVGSIFTNATPD SHIM

45

**SEQ ID NO: 86**  
**TTN 26343 -26503**

50 LTIQKARVTEKAVTSPPRVKSPEPRVKSPEAVKSPKRVKSPEPSHPKAVSPTET  
KPTPTEKVQHLPVSAPPEITQFLKAEASKEIAKLTCVVESSVLRAKEVTWYKD

GECLKENGHFQFHYSADGTYELKINNLTESDQGEYVCEISGEGGTSKANLQF  
MG

**SEQ ID NO: 87**

5 **Figure 27- Partial Amino Acid Sequence (mBC028274(908))**

TRPIIARAQCPGLGTMKRTDSGSICHHAPPPCWAHHAPRQSPRQPSSRERRPPE  
RAGSWAVAAEEEEAAASAAPWMRHYFGEDDGEMVPRTSSAAAFSLSDTKDRGP  
PVQSQTWRSARVPFGQAHSRAFEKPPLVQTQALRDFEKHLNLDLKKENFSL  
10 KLRIYFLEERMQQKYEVSREDVYKRNIELKVEVESLKRELQDRKQHLDKTWA  
DAEDLNSQNEAELRRQVEERQQETEHVYELLGNKIQLLQEEPRLAKNEATEM  
ETLVEAEKRCNLELSERWTNAAKNREDAAGDQEKPDQYSEALAQRDRRIEEL  
RQSLAAQEGLEQLSQEKRQLLHLEEPASMEVQPVPKGLPTQQKPDLHETPT  
TQPPVSESHLAELQDKIQQTEATNKILQEKLNDLSCELKSAQESSQKQDTTIQS  
15 LKEMLSRESETEELYQVIEGQNDTMAKLREMLHQSGLHSGIAPAQQ  
QVALLDLQSALFCSQLEIQRLQRLVRQKERQLADGKRCVQLVEAAAQEREHQ  
KEAAWKHNQELRKALQHLQGEHLSKSSQQLHVLEAEKYNEIRTQGGNIQHLS  
HLSHKEQLIQELQELLQYRDNDKTLDTNEVFLEKLRQRIQDRAVALERVID  
EKFSALEEKDKELRQLRLAVRDRDHLERLCVLSANEATMQSMESLLRARG  
20 LEVEQLTATCQNLQWLKEELETKEFGHWQKEQESIIQQLQTSLHDRNKEVEDLS  
ATLLCKLPGQSEVAEELCQRLQRKERMLQDLLSDRNKQAVEHEMEIQGLLQ  
SMGTREQERQAAAEKMOVAFMERNSELQALRQYLGGKELMTSSQTFISNP  
AGVTSIGPHHGEQTDQGSQMPSRDDSTSLTAREEASIPRSTLGSDTVAGLE  
KELSNAKEELELMAKKKKK

25

**SEQ ID NO: 88**

**Figure 28- Full-length Amino Acid Sequence (mBC026864(777))**

MRADFNPSGFSLELAVCVLSVGLLAVVFLWRGFRSIRSRYVGREKKLAL  
30 SALIEEKCKLLDKVSIVQKEYEGLESSLKEASFEKESTEASQLEFVEGSQISEAT  
YENLEQSKSKLEDEILLLEEKLEERAKHSEQDELMADISKRIQSLEDESKSLK  
SQVAEAKTTFRIFEINEERLKGAIKDALNENSQSQKQLLQETEMMKEQVN  
DLQKQKVALEESRAQAEQALSEKESQIETLVTSLLKMKDWA  
AVLGEADDGNL  
DLDMKSGLENTAALDNQPKGALKKLIYAAKLNASLKALEGERNQVYTQLSE  
35 VDQVKEDLTEHIKSLESKQASLQSEKTEFESESQKLQKQKLKVITELYQENEMK  
LHRKLTVEENYRLEKEEKLSKVDEKISHATEELETQRAKDLEEEELERTIHSY  
QGQVISHEKKAHDNWLAARTLERNLNDLRKENAHNRQKLTETEFKFELLEK  
DPYALDVPNTAFGREHSPYGPSPLGRPPSETRAFLSPPTLLEGPLRLSPLLPGGG  
GRGSRGPENLLDHQMNTERGESSYDRLSDAPRAPSDRSLSPWEQDRRMTAH  
40 PPPGQPYSDPALQRQDRFYPSNGRLSGPAELRSYNMPSLDKVDGPVPSEMESS  
GNGTKDNLGNSNVPDSPAIECEAAGRGGFFPPFPVVDPLFPVDPRSQFMRR  
GPSFPPPPPGSIYAAPRDYFPPRDFPGPPLPPFPGRTVYAPRGFPYLP  
PPRAGFFP  
PPHPESRSELPPDLIPPSKEPAADPPETQEA

45 **SEQ ID NO: 89**

**Figure 29- Full-length Amino Acid Sequence (m5730504C04Rik)**

MDGKQACERMIRALELDPNLYRIGQSKIFFRAGVLAHLEEERDLKITDIIFFQ  
AVCRGYLARKAFKKQQQLSALKVLQRNCAAYLKLRLHWQWWRVFTKVKP  
50 LLQVTRQEEELQAKDEELLKVKEKQTKVEGELEEMERKHQQLLEEKNILAEQ

LQAETELFAEAEEMRARLAACKQELEEILHDLESRVEEEEERNQILQNEKKK  
 MQAHIQDLEEQLDEEEGARQKLQLEKVTAEAKIKKMEEEEVLLLEDQNSKFIK  
 EKKLMEADRIAECSSQLAEIEEEKAKNLAKIRNKQEVMSDLEERLKKEEKTRQE  
 LEKAKRKLDGETTDLQDQIAELQAQVDELKVQLTKKEEELQGALARGDDET  
 5 LHKNNALKVARELQAQIAELQEDFESEKASRNKAQKQKRDLEEELEALKTEL  
 EDTLDTTAAQQELRTKREQEVAELKKALEDETKNHEAQIQDMRQRHATALE  
 ELSEQLEQAKRFKANLEKNKQGLETDNKELACEVKVLQQVKAESEHKRKKL  
 DAQVQELHAKVSEGDRLRVELAEKANKLQNELDNVSTLLEAEKKGIFAK  
 DAAGLESQLODTQELLQEETRQKLNLSRRIRQLEEEKNSLQEQEEEEEEARKN  
 10 LEKQVLALQSQLADTKKKVDDDLGTIESLEEAKKKLLKDVEALSQRLEEKVL  
 AYDKLEKTKNRLQQELDDLTVDLHQHQIVSNLEKKQKKFDQLLAEEKGISA  
 RYAEERDRAEAEAREKETKALSLARALEEAEAKEEFERQNKQLRADMEDL  
 MSSKDDVGKNVHELEKSKRALEQQVEEMRTQLEEELEDELQATEDAKLRLEV  
 NMQAMKAQFERDLQTRDEQNEEKKRLLLKQVRELEAELEDERKQRALAVAS  
 15 KKKMEIDLKDLEAQIEAANKARDEVIKQLRKLQAQMKDYQRELEEARASRD  
 EIFAQSESEKKLSLEAEILQLQEELASSERARRHAEQERDELADEIANSASG  
 KSALLDEKRRLEARIAQLEEELEEEQSNMELLNDRFRKTTLQVDTLNTELAEE  
 RSAAQKSDNARQQLERQNKELKAKLQLEGA VKSKFKATISALEAKIGQLEE  
 QLEQEA KERA AANKL VRRTEKKLKEIFMQVEDERRHADQYKEQMEKANAR  
 20 MKQLKRQLEEAEEEATRANASRRKLQRELDDATEANEGLSREVSTLKNRLRR  
 GGPISFSSSRSGRRQLHIEGASLELSDDDTESKTSVDNDTQPPQSE

**SEQ ID NO: 90-**

**Figure 30- Full-length Amino Acid Sequence (mMYH9)**

25 MAQQAADKYLYVDKNFINNPLAQADWAAKKLVWVPSSKNGFEPASLKEEV  
 GEEAIVELVENGKKVKVNKDDIQKMNPFPKFSKVEDMAELTCLNEASVLHNL  
 KERYYSGLIYTYSGLFCVVPINPYKNLPIYSEEIVEMYKGKKRHEMPPHIYAITD  
 TAYRSMMDREDQSILCTGESGAGKTENTKKVIQYLAHVASSHKSKKDQGE  
 30 LERQLLQANPILEAFGNAKTVKNDNSSRFKGFIRINFVDVNGYIVGANIETYLLE  
 KSRAIRQAKEERTFHIFYLLSGAGEHLKTDLLLEPYNKYRFLSNGHVTIPGQ  
 QDKDMFQETMEAMRIMGIPEDQMGLLRVISGVLQLGNIAFKKERNTDQAS  
 MPDNTAAQKVSHLLGINVTDFTRGILTPIKVGGRDYVQKAQTKEQADFAIEA  
 LAKATYERMFRWLVLRLINKALDKTKRQGASFIGILDIAGFEIFDLNSFEQLCIN  
 35 YTNEKLQQLFNHTMFILEQEEYQREGIEWNFIDFGLDLQPCIDLIEKPAGPPGIL  
 ALLDEECWFPKATDKSFVEKVVEQEGTHPKFKPKQLKDKADFCIIHYAGKV  
 DYKADEWLMKNMDPLNDNIATLLHQSSDKFVSELWKDVDRIIGLDQVAGMS  
 ETALPGAFKTRKGMFRTVGQLYKEQLAKLMATLRNTNPNFVRCIIPNHEKKA  
 GKLDPHLVLDQLRCNGVLEIGIRICRQGFPNRVVFQEFRQRYEILTPNSIPKGF  
 40 DGKQACVLMIKALELDSNLYRIGQSKVFFRAGVLAHLEERDLKITDVIIGFQ  
 ACCRGYLARKAFAKRQQQLTAMKVLQRNCAAYLRLRNWQWWRLFTKVKP  
 LLNSIRHEDELLAKEAELTKVREKHLAAENRLTEMETMQSQLMAEKLQLQEQ  
 LQAETELCAEAEELRARLTAKKQELEEICHDLARVEEEEEERCQYLQAEKKK  
 MQQNIQELEEQLEEESARQKLQLEKVTTEAKLKKLEEDQIIMEDQNCKLAK  
 45 EKKLLEDRAVEFTTNLMEEEEKSKSLAKLKNKHEAMITDLEERLRREEKQRQ  
 ELEKTRRKLEGDSTDLSQIAELQAQIAELKMQLAKKEEELQAALARVEEEA  
 AQKNMALKKIRELETQISELQEDLESERASRNKAQKQKRDLEEELEALKTELE  
 DTL DSTAAQQELRSKREQEV SILKKTLEDEAKTHEAQIQEMRQKHSQAVEEL  
 ADQLEQTKRVKATLEKAKQTLENERGELANEVKALLQGKGDSEHKRKKVEA  
 50 QLQELQVKFSEGERVRTELADKVTKLQVELDSVTGLLSQSDSKSSKLT KD FSA

LESQLODTQELLQEENRQKLSLSTKLKQMEDEKNSFREQLLEEEEEAKRNLEK  
QIATLHAQVTDMMKKKMEDGVGCLETAEEAKRRLQKDLEGLSQRLEEKVAAY  
DKLEKTKTRLQQELDDLVDLDHQRQSVSNLEKKQKKFDQLLAEEKTISAKY  
AEERDRAEAEAREKETKALSLARALEEAMEQKAELERLNKQFRTEMEDLMS  
5 SKDDVGKSVHELEKSKRALEQQVEEMKTQLEEELEDELQATEDAKLRLEVNL  
QAMKAQFERDLQGRDEQSEEKKKQLVRQVREMEAELEDERKQORMAMAAR  
KKLEMDLKDLEAHIDTANKNREEAIKQLRKLQAQMKDCMRELD DTRASREE  
ILAQAKENEKKLKSMEAEMIQLQEELAAAERAKRQAQQRDELADEIANSSG  
KGALALEEKRRLEARIALLEEELEEEQGNTELINDRLKKANLQIDQINTDLNLE  
10 RSHAQKNENARQQLERQNKELKAKLQEMESAVKSKYKASIAALEAKIAQLE  
EQLDNETKERQAASKQVRRTKLLKDVLLQVEDERRNAEQFKDQADKASTR  
LKQLKRQLEEAEEEAQRANASRRKLQRELEDATETADAMNREVSSLKNKLR  
RGDLPFVVTRRIVRKGTGDCSDEEVDGKADGADAKAAE

15 **SEQ ID NO: 91**

**Figure 31- Full-length Amino Acid Sequence (mp116Rip)**

MSAAKENPCRKFQANIFNKSKCQNCFKPRESHLLNDEDLTQAKPIYGGWLLL  
APDGTDFDNPVHRSRKWQRRFFILYEHGLLRYALDEMP T TLPQGTINMNQCT  
20 DVVDGEARTGQKFSLCILTPDKEHFIRAETKEIISGWLEMLMVYPRTNKQNKQ  
KKRKVEPPTPQEPGPAKMAVTSSSGGTSGSSSSIPSAEKVPTTKSTLWQEEMR  
AKDQPDGTSLSPAQSPSQSPPAACTPREPGLESKEDESTISGDRVDGGRKVR  
VESGYFSLEKAKQDLRAEEQLPPLLSPSPSTPHSRRSQVIEKFEALDIEKAEH  
METNMLIL TTPSSDTRQGRSERRAIPRKRDFASEAPTAPLSDACPLSPHRAKS  
25 LDRRSTESSMTPDLLNFKKGWLTQKYEDGQWKKHWFVLADQSLRYRDSV  
AEEAADLDGEINLSTCYDVTEYPVQRNYGFIHTKEGEFTLSAMTSGIRRNWI  
QTIMKHVLPASAPDVTSSLPEGKNKSTSFETCSRSTEQEAEPGEPDPEQKKS  
ARERRREGRSKTFDWAEFRPIQQALAQERASAVGSSDSGDPGCLEAEPGELER  
ERARRREEPRKRFGLMDTIDGPGMEDTALRMDIDRSPGLLGTPDLKTQNVHV  
30 EIEQRWHQVETTP LREEKQVPIAPLHLSLED R SERLSTHELTSLLEKELEQSQK  
EASDLLEQNRLQLDQLRVALGREQSAREGYVLQATCERGFAAMEETHQKKIE  
DLQRQHORELEKLREEKDRLLAEETAATISAIEAMKNAHREEMERELEKSQR  
SQISSINS DIALRRQYLEELQSVQRELEV LSEQYSQKCLENAHLAQALEAERQ  
ALRQCQRENQELNAHNQELNNRLAAEITRLRTL TGDGGGESTGLPLTQGKD  
35 AYELEVLLRVKESEIQYLKQEISSLKDELQTALRDKKYASDKYKDIYTELSIAK  
AKADCDISRLKEQLKAATEALGEKSPEGTTVSGYDIMKSKSNPDFLKKDRSC  
VTRQLRNIRSKSVIEQVSWDN

**SEQ ID NO: 92**

40 **Figure 32- Full-length Amino Acid Sequence (TPM3)**

MMEAIIKKKMQMLKLDKENALDRAEQAEAEQKQAEERSKQLEDELAA  
MQKKLKGTEDEL DRAQERLATALQKLEEA EKA ADESERGMKV IENRA  
LKDEEKMELQEIQ LKEAKHIAEEADRKYEEVARKLVIEGDLERTEERA  
45 ELAESKCSELEEEELKNVTNNLKSLEAQAEKYSQKEDKYEEEIKILTDK  
LKEAETRAEFAERSVAKLEKTIDDLEDELYAQKLKYKAISEELDHALND  
MTSI

**SEQ ID NO: 93**

**Figure 33- Full-length Amino Acid Sequence (MYH6)**

MTDAQMADFGAAAQYLRKSEKERLEAQTRPFDIRTECFVPDDKEEFVKAKIL  
5 SREGGKVIAETENGKTVTVKEDQVLQQNPPKFDKIEDMAMLTFLHEPAVLFN  
LKERYAAWMIYTYSGLFCVTVPYKWLVPVYNAEVVAAAYRGKKRSEAPPHIF  
SISDNAYQYMLTDRENQSILITGESGAGKTVNTRKVIQYFASIAAIGDRGKKD  
NANANKGTLEDQIIQANPALEAFGNAKTVRNDNSSRFGKFIRIHFGATGKLAS  
ADIETYLLEKSRVIFQLKAERNYHIFYQILSNKKPELLDMLLVTNPNPYDYAFVS  
10 QGEVSVASIDDSEELMATDSAFDVLGFTSEEKAGVYKLTGAIMHYGNMKFK  
QKQREEQAEPDGTEDADKSAYLMGLNSADLLKGLCHPRVKVGNEYVTKGQ  
SVQQVYYYSIGALAKAVYEKMFNWMVTRINATLETKQPRQYFIGVLDIAGFEIF  
DFNSFEQLCINFTEKLLQQFFNHMHMFVLEQEEYKKEGIEWTFIDFGMDLQACI  
DLIEKPMGIMSILEEECMFPKATDMTFKAKLYDNHLGKSNFQKPRNIKGGKQ  
15 EAHFSLIHYAGTVDYNILGWLEKNKDPLNETVVVALYQKSSLKLMATLFSSYA  
TADTGDSGKSKGGKKKGSSFTVVSALHRENLNKLMTNLRTTHPHFVRCIIPNE  
RKAPGVMDNPLVMHQLRCNGVLEGIRICRKGFPNRILYGDFRQRYRILNPVAI  
PEGQFIDSRKGTEKLLSSLDIDHNQYKFGHTKVFFKAGLLGLEEMRDERLSRI  
ITRMQAQARGQLMRIEFKKIVERRDALLVIQWNIRAFMGVKNWPWMKLYFK  
20 IKPLLKSAETEKEMATMKEEFGRIKETLEKSEARRKELEEKMVSLLOEKNDLQ  
LQVQAEQDNLNDAEERCDQLIKNKIQLEAKVKEMNERLEDEEEMNAELTAK  
KRKLEDECESELKKDIDDLLETLAKVEKEKHATENKVKNLTEEMAGLDEIIAK  
LTKEKKALQEAHQALDDLQVEEDKVNSLSKSKVKLEQQVDDLEGSLEQEK  
KVRMDLERAKRKLEGDLKLTQESIMDLENDKLQLEEKLLKKKEFDINQQNSKI  
25 EDEQVLALQLQKKLKENQARIEELEEELEAERTARAKVEKLRSDSLRELEEIS  
ERLEEAGGATSVQIEMNKKREAEFQKMRRDLEEATLQHEATAAALRKKHAD  
SVAELGEQIDNLQRVKQKLEKEKSEFKLELDDVTSNMEQIIKAKANLEKVSRT  
LEDQANEYRVKLEEAQRSLNDFTTQRAKLQTENGELARQLEEKEALISQLTR  
GKLSYTQQMEDLKRQLEEEGKAKNALAHALQSARHDCDLLREQYEEETEAK  
30 AELQRVLSKANSEVAQWRTKYETDAIQRTTEELEEAKKKLAQRLQDAEEAVE  
AVNAKCSSLEKTKHRLQNEIEDLMVDVERSNAAAAAALDKKQRNFDKILAEW  
KQKYEESQSELESSQKEARSLSTELFKLKNAYEESLEHLETFKRENKNLQEEIS  
DLTEQLGEGGKNVHELEKVRKQLEVEKLELQSALEEAASLEHEEGKILRAQ  
LEFNQIKAEIERKLAEKDEEMEQAKRNHQRVVDLSLQTSLSLDAETRSRNEVLRV  
35 KKKMEGDLNEMEIQLSHANRMAAEAQKQVKSLSLQSLKDTQIQLDDAVRAN  
DDLKENIAIVERNNLLQAELEELRAVVEQTERSRLAEQELIETSERVQLLHS  
QNTSLINQKKKMESDLTQLQSEVEEAQVECRNAEEKAKKAITDAAMMAEEL  
KKEQDTS AHLERMKKNMEQTIKDLQHRLDEAEQIALKGGKKQLQKLEARVR  
ELEGELEAEQKRNAESVKGMRKSERRIKELTYQTEEDKKNLLRLQDLVDKLO  
40 LKVKAYKRQAEAEQANTNLSKFRKVQHELDEAEERADIAESQVNKLRAK  
SRDIGAKQKMHDEE

**SEQ ID NO: 94**

**Figure 34- Full-length Amino Acid Sequence (mMBLR)**

45 MDEAETDATENKRASEAKRASAMPPPPPPPPISPPALIPAPAAGEEGPASLGQA  
GAAGCSRSRPPALEPERSLGRRLGRFEDYDEEELEEEEEEEMEEEEEEEEEMSHFSL  
RLESGRADSEDEEERLINLVELTPYILCSICKGYLIDATTITECLHTFCKSCIVRH  
FYYSNRCPKCNIVVHQTQPLYNIRLDRQLQDIVYKLVINLEEREKKQMHDYK  
50 ERGLEVPKPAAPQVPSSKGKTKKVLESVFRIPPELDMSSLLEFIGANEDTGHF

KPLEKKFVRVSGEATIGHVEKFLRRKMGLDPACQVDIICGDHLLERYQTLREIR  
RAIGDTAMQDGLLVLHYGLVVSPLKIT

**SEQ ID NO: 95**

**5 Figure 35- Full-length Amino Acid Sequence (mZFP144)**

MHRTTRIKITELNPHLMCALCGGYFIDATTIVECLHSFCKTCIVRYLETNKYCP  
MCDVQVHKTRPLLSIRSDKTLQDIVYKLVPGLFKDEMRRRRDFYAAYPLTEVP  
NGSNEDRGEVLEQEKGALGDDEIVSLSIEFYEGVRDREEKKNLTENGDDGKE  
10 KTGVRFLRCPAAMTVMHLAKFLRNKMDVPSKYKVEILYEDEPLKEYYTLM  
DIAYIYPWRRNGPLPLKYRVQPACKRLTLPTVPTPSEGNTNTSGASECESVSDKAPS  
PATLPATSSSLPSPATPSHGSPSSHGPPATHPTSPTPPSTAAGTTTATNGGTSNCLQ  
TPSSTSRRGRKMTVNGAPCPP

**15 SEQ ID NO: 96**

**Figure 37- Full-length Amino Acid Sequence (14-3-3epsilon)**

MDDREDLVYQAKLAEEQAERYDEMVESMKKVAGMDVELTVEERNLLSVAYK  
NVIGARRASWRIISSIEQKEENKGGEDKMKMIREYRQMVETELKLICCDILDVL  
20 DKHLIPAANTGESKVFFYKMKGDYHRYLAEFATGNDRKEAAENSLVAYKAAS  
DIAMTELPPTHPIRLGLALNFSVFYIEILNSPDRACRLAKAAFDDAIAELDTLS  
EESYKDSTLIMQLLRDNLTWTSDMQGDGEEQNKEALQDVEDENQ

**SEQ ID NO: 97**

**25 Figure 39- Full-length Amino Acid Sequence (mCATNB)**

MATQADLMELDMAMEPDRKAAVSHWQQQSYLDSGIHSGATTTAPSLSGKGN  
PEEEDVDTSQVLYEWEQGFSSQFTQEQVADIDGQYAMTRAQRVRAAMFPETL  
DEGMQIPSTQFDAAHPTNVQRLAEPSQMLKHAVVNLINYQDDAELATRAIPEL  
30 TKLLNDEDQVVVNKAAVMVHQLSKKEASRHAIMRSPQMVSIVRTMQNTN  
DVETARCTAGTLHNLSHHREGLLAIFKSGGIPALVKMLGSPVDSVLFYAITTLH  
NLLHHEGAKMAVRLAGGLQKMVALLNKTNVKFLAITTDCLQILAYGNQES  
KLIILASGGPQALVNIMRTYTYEKLWTTSRVLKVLSSCNKPAIVEAGGMQ  
ALGLHLTDPSQRLVQNCLWTLRNLSDAATKQEGMEGLLGLTLVQLLGSDDINV  
35 VTCAAGILSNLTCNNYKNKMMVCQVGGIEALVRTVLRAGDREDITEPAICALR  
HLTSRHQEAEMAQNAVRLHYGLPVVVKLLHPPSHWPLIKATVGLIRNLALCP  
ANHAPLREQGAIPRLVQLLVRAHQDTQRRTSMGGTQQQFVEGVRMEEIVEGC  
TGALHILARDVHNIRIVIRGLNTIPLFVQLLYSPIENIQRVAAGVLCELAQDKEA  
AEAIEAEGATAPLTELHLSRNEG VATYAAAVLFRMSEDKPQDYKKRLSVELTSS  
40 LFRTEPMAWNETADLGLDIGAQGEALGYRQDDPSYRSFHSGGYGQDALGMD  
PMMEHEMGGHHPGADYPVDGLPDLGHAQDLMDGLPPGDSNQLAWFDTDL

**SEQ ID NO: 98**

**Figure 40- Full-length Amino Acid Sequence (mCATNS)**

45 MDDSEVESTASILASVKEQEAQFEKLTRALEEERRHVSAQLERVRVSPQDANS  
LMANGTLTRRHQNGRFVGDADLERQKFSDLKLNGPQDHNHLLYSTIPRMQE  
PGQIVETYTEEDPEGAMSVSVETDDGTTRRTETTVKKVVKMTTTRTVQPV  
PMGPDGLPVDASAVSNYIQTGLGRDFRKNNGGGPGPYVGQAGTATLPRNFH  
50 YPPDGYGRHYEDGYPGGSDNYGSLSRVTRIEERYRPSMEGYRAPSQRQDVYGP

QPQVRVGGSSVDLHRFHPEPYGLEDDQSRSMGYDDL DYGMMSDYGTARRTG  
 TPSDPRRRLRSYEDMIGEEVPPDQYYWAPLAQHERGSLASLDSL RKGMPPPS  
 NWRQPELPEVIAMLGFR LDA VKSNAAYLQHLCYRNDKVKTDVAKLKGIPIL  
 VGLLDHPKKEVHLGACGALKNISFGRDQDNKIAIKNCDGVPALVRLLRKARD  
 5 MDLTEVITGTLWNLSSHDSIKMEIVDHALHALTDEVIIPHS GWEREPNEDCKP  
 RHIEWESVLTNTAGCLRNVSSEARRKLRECDGLVDALIFIVQAEIGQKDS  
 DSKLVENCVCLLRNLSYQVHREIPQAERYQEALPTVANSTGPHAASCFGAKK  
 GKGGKPTEDPANDTVDFPKRTSPARGYELLFQPEVVRIYISLLKESNTPAILEA  
 SAGAIQNLCAGRWTYGRYIRSALRQE KALSARAELLTSEHERVVKAASGALR  
 10 NLAVDARNKELIGKHARPNLVKNLPGGQQNSSWNFSED TVVSILNTINEVIAE  
 NLEAAKKLRETQGIEKLVLINKSGNRSEKEVRAAALVLQTIWGYKELRKPLE  
 KEGWKKSD FQVNLNNASRSQSSH SYDDSTLPLIDRNQKSDNNYSTLNERGDH  
 NRTLDRSGDLGDMEPLKGAPLMQKI

15 **SEQ ID NO: 99**

**Figure 41- Full-length Amino Acid Sequence (mSWAN)**

MAVVIRLQGLPIVAGTMDIRHFFSGLTIPDGGVHIVGGELGEAFIVFATDEDAR  
 LGMMRTGGTIKGSKVTL LSSKTEMQNMIELSRRRFETANLDIPPANASRSGPP  
 20 PSSGMSSRVNLPATVPN FN NPSVVTATTSVHESNKNIQTFSTASVGTAPPSM  
 GTSFGSPTFSSTIPSTASPMNTVPPPIPPIPAMPSLPPLPSIPPVPPVPTLPPVP  
 PVPPIPPVPSVPPMTTLPPMSGMPPLNPPPVA PLPAGMNGSGAPIGLNNNMNPV  
 FLGPLNPVNSIQMNSQSSVKSLPINPDDLYVSVHGM PFSAMENDVREFFHGLR  
 VDAVHLLKDHVGRNNGNGLVKFLSPQDTFEALKRNRMLMIQRYVEVSPATER  
 25 QWVAAGGHITFKQSMGPSGQAHP PPQTLPRSKSPSGQKRSRSPHEAGFCVY  
 LKGLPFEAENKHVIDFFKKLDIVEDSIYIAYGPNGKATGEGFVEFRNDADYKA  
 ALCRHKQYMGNRFIQVHPITKKGMLEKIDMIRKRLQNF SYDQRELVLNPEGE  
 VSSAKVCAHITNIPFSITKMDVLQFLEGIPVDENAVHVLVDNNGQGLGQALVQ  
 FKTEDDAHKSEHLHRKKLNGREAFVHIVTLEDMREIEKNPPAQGKKGLKISVP  
 30 GNPAPVPVIPSAGMPAAGIPTAGIPGAGLPSAGMPGAGMPSSGMPGMPGPGI  
 PGAGIPGPAMP GPAMP GPAMP GPAMP GPAMP GPAMP GPAMP GPAMP GP  
 AIPGPAIPGPAIPGPTIPGAGIPSAGGEEHVFLT VGSKEANN GPPFNFPGNFGGPN  
 AFGPPLPPPGLGGGGAFGDARPGMP SVGNSGLPGLGLDVPFGFGGNNISGPSG  
 FGGIPQNFNGPGSLNAPPGFGSGPPGLGSVP GHLSGPPAFGPGPGPLIHIGGP  
 35 PGFGASSGKPGPTI IKVQNMPFTV SIDEILDFYGYQVIPGSVCLKYNEKGMPT  
 GEAMVAFESRDEATAAVIDLNDRPIGSRKV KLVLG

**SEQ ID NO: 100**

**Figure 42- Partial Amino Acid Sequence (m2300003P22Rik(248))**

40 -KEGRREHAFVPEPFTGTNLAPSLWLHRFEVIDDLNHWDHATKLRFLKESLKG  
 DALDVYNGLSQAQGD FSFVKQALLRAFGAPGEAFSEPEEVL FANSMGKGY  
 LKGKVGHVPVRFLVDSGAQVS VHPALWEEVTDGDLDTLRPFNNVVKVANG  
 AEMKILGVWDTEISLGKTKLKA EFLVANASAE EAIIGTDVLQDHNAVLD FEHR  
 45 TCTLKGKKFRLLPVGSSLEDEFDLELIEEEEGSSAPEGSH

SEQ ID NO: 101

Figure 44- Full-length Amino Acid Sequence (PCNT2)

NH<sub>2</sub>-MEVEQEQRRRKVEAGRTKLAHFRQRKTKGDSSHSEKKTAKRKGSAMD  
5 ASVQEESPVTKEDSALCGGGDICKSTSCDDTPDGAGGAFAAQPEDCDGEKRE  
DLEQLQKQVNDHPPEQCGMFTVSDHPPEQHGMFTVGDHPPEQRGMFTVSD  
HPPEQHGMFTVSDHPPEQRGMFTISDHQPEQRGMFTVSDHTPEQRGIFTISDH  
PAEQRGMFTKECEQECELAITDLESGREDEAGLHQSQAVHGLELEALRLSLSN  
MHTAQLELTQANLQKEKETALTELREMLNSRRAQELALLQSRQQHELELLRE  
10 QHAREKEEVVLRCGQEAELKEKLQSEMEKNAQIVKTLKEDWESEKDLCLE  
NLRKELSAKHQSEMEDLQNQFQKELAEQRAELEKIFQDNQAERALRNLESH  
HQAIEKLREDLQSEHGRCLEDLEFKFKESEKEKQLELENLQASYEDLKAQSQ  
EEIRRLWSQLDSARTSRQELSELHEQLLARTSRVEDLEQLKQREKTQHESELE  
QLRIYFEKKLRDAEKTYQEDLTLLQQRQLQGAREDALLDSVEVGLSCVGLLEEK  
15 PEKGRKDHVDELEPERHKESLPRFQAELEESHHRHQLEALESPLCIQHEGHVSD  
RCCVETSALGHEWRLEPSEGHSQELPWVHLQGVQDGDLEADTERAARVLGL  
ETEHKVQLSLLQTELKEEIELLKIEENRNLYGKLQHETRLKDDLEKVKHNLIED  
HQKELNNAKQKTELMKQEFQRKETDWKVMKEELQREAEKLTLMLELRE  
KAESEKQTIINKFELREAEMRQLQDQQAQILDRLSLTEQQGRLLQLEQDLT  
20 SDDALHCSQCGRPPTAQDGELAALHVKEDCALQLMLARSRFLEERKEITEK  
FSAEQDAFLQEAQEQHARELQLLQERHQQLLSVTAELEARHQAALGELTAS  
LESKQGALLAARVAELQTKHAADLGALETRHLSSLDSLESCYLSEFQTIREEH  
RQALELLRADFEEQLWKKDSLHQITLTQELEKLKRKHGEGELQSVRDHLRTEV  
STELAGTVAHQLGVHQGEFGSEKKTALHEKEETLRLQSAQAQPFHQEEKES  
25 LSLQLQKKNHQVQQLKDQVLSLSHEIEECRSELEVLQRRERENREGANLLS  
MLKADVNLSHSERGAQDALRRLGLFGETLRAAVTLRSRIGERVGLCLDDA  
GAGLALSTALALEEMWSDVALPELDRTLSECAEMSSVAEISSHMCEFLMSPE  
SVRECEQPIRRVFQSLSLAVDGLMEMALDSSSQLEEARQIHSRFEKEFSFKNEE  
TAQVVRKHQELLECLKEESAACAELALELHKTQGTLEGFKVETADLKEVLA  
30 GKEDSEHRLVLELESLRRQLQQAQEAALREECTRLWSRGEATATDAEARE  
AALRKEVEDLTKEQSETRKQAEKDRSALLSQMKILESELEEQLSQHRGCAKQ  
AEAVTALEQQVASLDKHLRNQRQFMDEQAAREHEREEFQQEIQRLEGQLR  
QAAKPQPWGPGRDSQQAPLDGEVELLQQKLREKLDEFNELAIQKESADRQVL  
MQEEIEIKRLEEMNINIRKKVAQLQEEVEKQKNIVKGLEQDKEVLKKQQMSSL  
35 LLASTLQSTLDAGRCPEPPSGSPPEGPEIQLEVTQRALLRRESEVLDLKEQLEK  
MKGDLESKNEEILHLNLKLDMQNSQTAVSLRELEEENTSLKVIYTRSSIEELK  
ATIENTLQENQKRLQKEKAEEIEQLHEVIEKLQHEL SLMGPVVHEVSDSQAGSL  
QSELLCSQAGGPRGQALQGELEAALEAKEALSRLADQERRHSQALEALQQR  
LQGAEEAAELQLAELERNVALREAEVEDMASRIQEFEAALKAKEATIAERNL  
40 EIDALNQRKAAHSAELEAVLLALARIRRALEQQPLAAGAAPPQLWLRAQCA  
RLSRQLQVLHQRFRLRCQVELDRRQARRATAHTRVPGAHPQPRMDGGAKAQ  
VTGDVEASHDAALEPVVPDPQGDLPVLVTLKDAPLCKQEGVMSVLTVCQR  
QLQSELLLVKNEMRLSLEDGGKGKEKVLEDCQLPKVDLVAQVKQLQEKLNRL  
LLYSMTFQNVDAADTKSLWPMASAHLESSWSDSDGGEEDISPHTDCDA  
45 NTATGGVTDVIKNQAIDACDANTTPGGVTDVIKNWDSLIPDEMPDSPIQEKSE  
CQDRSLSSPTSVLGGSRHQSHTAEGPRKSPVGMLDLSSWSSPEVLRKDWTL  
EPWPSLPVTPHSGALSLCSADTSLGDRADTSLPQTQGPGLLCSPGVSAAALAL  
QWAESPADDHHVQRTAVEKDVEDFITTSFDSQETLSSPPPGLEGKADRSEKS  
DGSFGGARLSPGSGGPEAQTAGPVTPASISGRFQPLPEAMKEKEVRPKHVKAL  
50 LQMVRDESHQILALSEGLAPPSGEPHPPRKEDEIQDISLHGGKTQEVPTACPD

WRGDLLQVVQEAFEKEQEMQGVELQPRLSGSDLGGHSSLLERLEKIIREQGD  
LQEKSLHLRLPDRSSLLSEIQALRAQLRMTHLQNQEKLQHLRTALTSAEARG  
SQQEHQLRRQVELLAYKVEQEKCAGDLQKTLSEEQEKANSVQKLLAAEQTV  
VRDLKSDLCESRQKSEQLSRSLCEVQQEVLQLRSMSSKENELKAALQELESE  
5 QGKGRALQSQLEEEQLRHLQRESQSAKALEELRASLETQRAQSSRLCVALKH  
EQTAKDNLQKELRIEHSRCEALLAQERSQLSELQKDLAAEKSRTLELSEALRH  
ERLLTEQLSRTQEACVHQDTQAHHALLQKLKEEKS RVVDLQAMLEKVQQQ  
ALHSQQQLEAEAQKHCEALRREKEVSATLKSTVEALHTQKRELRCSLERERE  
KPAWLQAELEQSHPRLKEQEGRKAARRSAEARQSPAAAEQWRKWQORDKEK  
10 LRELELQRQRDLHKIKQLQQTVRDLESKDEVPGSRLHLGSARRAAGSDADHL  
REQQRELEAMRQRLLSAARLLTSFTSQAVDRTVNDWTSSNEKAVMSLLHTLE  
ELKSDLSRPTSSQKKMAAELQFQFVDVLLKDNVSLTKALSTVTQEKLELSRA  
VSKLEKLLKHHLQKGCSPSRSESAWKPDETAPQSSLRPDPGRLPAAASEEA  
HTSNVKMEKLYLHYLRAESFRKALIQKKYLLLLIGGFQDSEQETLSMIAHLG  
15 VFPSKAERKITSRPFTFRFRTAVRVVIAILRLRFLVKKWQEVDRKGALAQGKAP  
RPGPRARQPQSPPTRESPTRDVPSGHTRDPARGRRLAAAASPHSGGRATPS  
PNSRLERSLTASQDPEHSLTEYIHHLEVIQQRLGGVLPDSTSKKSCHPMIKQ

**SEQ ID NO: 102**

20 **Figure 45- Full-length Amino Acid Sequence (KPNA4)**

MADNEKLDNQRLKNFKNKGRDLETMRQRNEVVVELRKNKRDEHLLKRRN  
VPHEICEDSDIDGDYRVQNTSLEAIVQNASSDNQGIQLSAVQAARKLLSSDR  
NPPIDDLIKSGILPILVHCLERDDNPSLQFEAAWALTNIASGTSEQTQAVVQSNA  
25 VPLFLRLLHSPHQNVCEQAVWALGNIIGDGPQCRDYVISLGVVKPLLSFISPSIP  
ITFLRNVTWVMVNLCRHKDPPPPMETIQEILPALCVLIHHTDVNILDVTVWALS  
YLTDAAGNEQIQMVIDSGIVPHLVPLLSHQEVKVQTAALRAVGNIVTGTDEQTQ  
VVLNCDALSHFPALLTHPKEKINKEAVWFLSNITAGNQQQVQAVIDANLVPMII  
HLLDKGDFGTQKEAAWAISNLTISGRKDQVAYLIQQNVIPPCNLLTVKDAQV  
30 VQVVLDGLSNILKMAEDEAETIGNLIEECGGLEKIEQLQNHENEDIYKLAYEII  
DQFFSSDDIDEDPSLVPEAIQGGTGFNSSANVPTEGFQF

**SEQ ID NO: 103**

**Figure 46- Full-length Amino Acid Sequence (MAPKAP1)**

35 MAFLDNPTIILAHIRQSHVTSDDTGMCEMVLIDHDVDLEKIHPPSMPGDSGSEI  
QGSNGETQGYVYAQSVDITSSWDFGIRRRSNTAQRLERLRKERQNQIKCKNIQ  
WKERNKQSAQELKSLFEKKSLKEKPPISGKQSILSVRLEQCPLQLNNPFNEYS  
KFDGKGHVGTATKKIDVYLPLHSSQDRLLPMTVVTMASARVQDLIGLICWQ  
40 YTSEGREPKLNDNV SAYCLHIAEDDGEVDTD FPPPLDSNEPIHKFGFSTLALVEK  
YSSPGLTSKESLFVRINA AHGFSLIQVDNTKVTMKEILLKAVKRRKGSQKVSG  
SRADGVFEEDSQIDIATVQDMLSSHYSKFKVSMIHLRFTTDVQLGISGDKV  
EIDPVTNQKASTKFWIKQK PISIDSDLLCACDLAEEKSPSHAIFKLTYSNHDY  
KHLFYFESDAATVNEIVLKVN YILESRASTARADYFAQKQRKLNRRTSFSFQKE  
45 KKSGQQ

**SEQ ID NO: 104**

**Figure 47- Full-length Amino Acid Sequence (mTPT1)**

5 MIIYRDLISHDELFSDIYKIREIADGLCLEVEGKMVSRTEGAIDDSLIGGNASAE  
GPEGEGTESTVVTGVDIVMNHHLQETSFTKEAYKKYIKDYMKSLKGKLEEQK  
PERVKPFMTGAAEQIKHILANFNNYQFFIGENMNPdGMVALLDYREDGVTPF  
MIFFKDGLEMEKC

**SEQ ID NO: 105**

10 **Figure 48- Partial Amino Acid Sequence (mAK014397(679)) (SEQ ID NO: 105)**

QSRSRFQLNLDKTIESCKAQLGINEISEDVYTAVEHSDSEDSEKSESSDRXYVS  
DEEQKPKNEPEDPEDKEGSRVDKEAPAIAKRKPKPTNQVEVKEEAKSNSPVSEK  
PDTPAKDKASPEPEKDFVEKAKPSPHPTKDKLKGKDETDSPVHLGLDSDSE  
15 SELVIDLGEDPSGREGRKNKDKPKVSPKQDAIGKPPPSSTSAGNQSPPETPVL  
TRSATQAPAAAGVTVAAATTSTMSTVTVTAPATAVTGSPVKKQRPLLPKETVP  
AVQRVWNASSKFQTSSQKWHMQKIQRQQQQQQQQQQSQQQSQQQQPQSS  
QGTRYQTRQAVKAVQQKEVTQSPSTSTITLVTSTQPAALVSSSGSASTLASAI  
NADLPITASADVAADIAKYTSKMMDAIKGTMTEIYNDLSKNTTGSTIAEIRR  
20 LRIEIEKLQWLHQELAEMKHNLELTMAEMRQSLEQERDRLIAEVKKQLELE  
KQQAVIDETKKKQWCANCKKEAIFYCCWNTSYCDYPCQQAHWPEHMKST  
QSATAPQQEADAEASTETGNKSSQGNSSNTQSAPSEPASAPKEKEAPAESKSD  
SSNSTLDLGSRETPSSMLLGSNQSSVSKRCDKQPAYTPTTTDHQPHPNYPAQ  
KYHSRSSKAGLWSSSEEKRASSRSEHSGGTSTKNLMPKESRESRLDAFWD  
25

**SEQ ID NO: 106**

**Figure 49- Full-length Amino Acid Sequence (mHRMT1L1)**

MEAPGEGPCSESQVIPVLEEDPVDYGCQMQLLDGAQLQLQPEEFVAIAD  
30 YTATDETQLSFLRGEKILILRQTTADWWWGERAGCCGYIPANHLGKQLEEYD  
PEDTWQDEEYFDSYGTLLHLEMLADQPRTTYHSHVILQNKESLKDVKILDV  
GCGTGIISLFCALHARPKAVYAVEASDMAQHTSQLVLQNGFADTITVFQKQVE  
DVVLPEKVDVLVSEWMGTCLLFEFMIESILYARDTWLKGDGIIWPTTAALHLV  
PCSAEKDYHSKVLFWDNAYEFNLSALKSLAIKEFFSRPKSNHILKPEDCLSEPC  
35 TILQLDMRTVQVPDLETMRGELRFDIQKAGTLHGFTAWFSVYFQSLEEGQPQ  
QVVSTGPLHPTTHWKQTLFMMDDPVPVHTGDVVHGFCCVTKKSGMEKAHV  
CLSELGCHVRTRSHVSTELETGSFRSGGDS

**SEQ ID NO: 107**

40 **Figure 50- Full-length Amino Acid Sequence (HRMT1L1(241))**

MATSGDCPRSESQGEEPAECSEAGLLQEGVQPEEFVAIADYAATDETQLSFLRG  
EKILILRQTTADWWWGERAGCCGYIPANHVKGHVDEYDPEDTWQDEEYFGS  
YGTLKLHLEMLADQPRTTYHSHVILQNKESLTDKVIDLVGCGTGIISLFCALH  
45 ARPRAVYAVEASEMAQHTGQLVLQNGFADIITVYQKVEDVVLPEKVDVLVS  
EWMGTCLLKQSSSEGDAKDDTTGVLDCCQTI

**SEQ ID NO: 108**

**Figure 51- Partial Amino Acid Sequence (SAT(204))**

50

RRGRSRETNEEPPPTVQVQGGPGPQREEKQKTKMAKFVIRPATAADCSDILRLI  
KELAKY EYMEEQVILTEKDILLEDGFGEHPFYHCLVAEVPKEHWTPEGHSIVGF  
AMYYFTYDPWIGKLLYLEDDFFVMSDYRGFGIGSEILKNLSQVAMRCRCSSMH  
FLVAEWN EPSINFYKRRGASDLSSEEGWRLFKIDKEYLLKMATEE

5

**SEQ ID NO: 109**

**Figure 52- Partial Amino Acid Sequence (BC023995(305))**

10 FCELSSPAEMANVLCNRARLVSYLPGFCSLVKRVVNP KAFSTAGSSGSDESHV  
AAAPPDICSRTVWPDETMGPFQDQRFQLPGNIGFDCHLNGTASQK KSLVH  
KTLPDVLAEPLSSERHEFVMAQYVNEFQGN DAPVEQEINSAETYFESARVECA  
IQTCELLRKDFESLFPEVANGKLMILTVTQKTKNDMTVWSEEVEIEREV LLE  
KFINGAKEICYALRAEGYWADFIDPSSGLAFFGPYTNNTLFETDERYRHLGFSV  
DDLGCCKVIRHSLWGTHVVVGSIFTNATPD SHIMKKLSGN

15

**SEQ ID NO: 110**

**Figure 53- Full-length Amino Acid Sequence (TTN)**

20 NH<sub>2</sub>-MTTQAPTFTQPLQSVVVLEGSTATFEAHISGFPVPEVSWFRDGGVISTSTL  
PGVQISFSDGRAKLTI PAVTKANSGRYSLKATNGSGQATSTAELLVKAETAPP  
NFVQRLQSM TVRQGSQVRLQVRVTGIPTPVVKFYRDGAEIQSSLD FQISQEGD  
LYSLIAEAYPEDSGTYSVNATNSVGRATSTAELLVQGE EEPVAKKTKTIVST  
AQISESRQTRIEKKIEAHFDARSIATVEMVIDGAAGQQLPHKTPPRIPPKPSRS  
PTPPSIAAKAQLARQQSPSPIRHSPSPVRHVRAPTSPVRSVSPAARISTSPIRSV  
25 RSPLLMRKTQASTVATGPEVPPPWKQEGYVASSSEAE MRETTLTSTQIRTEE  
RWEGRYGVQEQTISGAAGAAASVSASASYAAEAVATGAKEVKQDADKSA  
AVATVVA AVDMARVREPVISAVEQTAQRTTTTAVHIQPAQE QVRKEAEKTA  
VTKVVVAADKAKEQELKSRTKEVITTKQEQMHVTHEQIRKETEKTFVPKVVI  
SAAKAKEQETRIS EITKKQKQVTQEAIMKETRKT VVPKVIVATPKVKEQDLV  
30 SRGREGITTKREQVQITQE KMRKEAEKTALSTIAVATAKAKEQETILRTRETM  
ATRQEQIQVTHGKVDVGKKA EAVATVVA AVDQARVREPREPGHLEESYAQQ  
TTLEYGYKERISA AKVAEPPQRPASEPHVVPKAVKPRVIQAPSETHIKTTDQK  
GMHISSQIKKTTDLTTERLVHVDKRPTASPHFTVSKISVPKTEHGYEASIAGS  
AIATLQKELSATSSAQKITKSVKAPTVPKSETRVRAEPTPLPQFPFADTPDTYK  
35 SEAGVEVKKEVGVSITGTTVREERFEVLHGREAKVTETARVPAPVEIPVTPPT  
LVSGLKNVTVIEGESVTLECHISGYPSPTVTWYREDYQIESSIDFQITFQSGIAR  
LMIREAFAEDSGRFTCSAVNEAGTVSTSCYLAVQVSEEF EKETTAVTEKFTTE  
EKRFVESRDVVM TDTSLTEEQAGPGEPAPYFITKPVVQKLVEGGSVVF GCQ  
VGGNPKPHVYWK KSGVPLTTGYRYKVSYNKQTGECKLVISM TFADDAGEYT  
40 IVVRNKHGETSASASLLEEADYELLMKSQQEMLYQTQVTA FVQEPKVGETAP  
GFVYSEYEKEYE KEQALIRKKMAKDTV VVRTYVEDQEFHISSFEERLIKEIEY  
RIKTTLEELLEEDGEEKMAVDISESEAVESGFDLRIKNYRILEGMGVTFHCKM  
SGYPLPKIAWYKDGKRIKHGERYQMDFLQDGRASLRIPVVLPEDEGIYTA FAS  
NIKGNAICSGKLYVEPAAPLGPTYIPTLEPVSRI RSLSPRSVSRSPIRMSPARM  
45 SPARMSPARMSPARMSPGRRLEETDESQLERLYKPVFVLKPV SFKCLEGQTA  
RFDLKVVGRPMPETFWFHDGQQIVNDYTHKVVIKEDGTQSLIIVPATPSDSGE  
WTVVAQNRAGRSSISVILTVEAVEHQVKPMFVEKLKNVNIKEGSRLEMKVRA  
TGPNPNDIVWLKNSDIIVPHKYPKIRIEGTKGEAALKIDSTVSQDSAWYTATAI  
NKAGRDTTRCKVNVEFEFAEPEPERKLIIPRGTYRAKEIAAPELEPLHLRYGQ  
50 EQWEEGDLYDKEKQQKPFKKKLTSLRLKRFGPAHFECRLTPIGDPTMVVEW

LHDGKPLEAANRLRMINEFGYCSLDYGVAYSRDSGIITCRATNKYGTDHTSA  
TLIVKDEKSLVEESQLPEGRKGLQRIEELERMAHEGALTGVTTDQKEKQKPD  
VLYPEPVRVLEGETARFRCRVGTGYPQPKVNWYLNQGLIRKSKRFRVRYDGIH  
YLDIVDCKSYDTGEVKVTAENPEGVIEHKVKLEIQQREDFRSVLRRAPEPRPE  
5 FHVHEPGKLQFEVQKVDRPVDTTETKEVVKLKRAERITHEKVPEESEELRSKF  
KRRTEEGYYEAITAVELKSRKKDESYEELLRKTDELLHWTKELEEEKKAL  
AEEGKITIPTFKPKIELSPSMEAPKIFERIQSQTVGQGSDAHFRVRVVGKPDPE  
CEWYKNGVKIERSDRIYWYWPEDNVCELVIRDVTAEDSASIMVKAINIAGET  
SSHAFLLVQAKQLITFTQELQDVVAKEKDTMATFECETSEPFVKVKWYKDG  
10 MEVHEGDKYRMHSDRKVHFLSILTIDTSDAEDYSCVLVEDENVKTTAKLIVE  
GAVVEFVKELQDIEVPESYSGELECIVSPENIEGKWYHNDVELKSNGKYTITS  
RRGRQNLTVKDVTKEDQGEYSFVIDGKKTCKLKMKPRPIAILQGLSDQKVC  
EGDIVQLEVKVSLESVEGVWMKDGQEVQPSDRVHIVIDKQSHMLLIEDMTKE  
DAGNYSFTIPALGLSTSGRVSVYSVDVITPLKDVNVIEGTAKAVLECKVSPDV  
15 TSVKWYLNDEQIKPDDRVAIVKGTKQRLVINRTHASDEGPYKLIVGRVETN  
CNLSVEKIKIIRGLRDLTCTETQNVVFEVELSHSGIDVLWNFKDKEIKPSSKYKI  
EAHGKIYKLTVLNMMKDDDEGKYTFYAGENITSGKLTVAGGAISKPLTDQTV  
ESQEAVFCEVANPDSKGEWLRDGHPLTNNIRSESDGHKRRLLIAATKLDD  
IGEYTYKVATSKTSALKKVEAVKIKKTLKNLTVTETQDAVFTVELTHPNVKG  
20 VQWIKNGVVLESNEKYAISVKGTIYSLRIKNCAIVDESVYGFRLGRLGASARL  
HVETVKIHKPKDVTALENATVAFEVSVSHDTPVPKWFHKSVEIKPSDKHRL  
VSEKRVHKLMLQNISPSDAGEYTA VVGQLECKAKL FVETLHITKTMKNIEVP  
ETKTASFECEVSHFNVPMSWLKNGVEIEMSEKFKIVVQGKHLHQLIIMNTSTED  
SAEYTFVCGNDQVSATLTVTPIMITSMLKDINAEEKDTITFEVTVNYEGISYK  
25 WLKNGVEIKSTDKCQMRKTLTHSLNIRNVHFGDAADYTFVAGKATSTATL  
YVEARHIEFRKHIKDIKVLEKKRAMFECEVSEPDITVQWMKDDQELQITDRIK  
IQKEKYVHRLIPSTRMSDAGKYTVVAGGNVSTAKLFVEGRDVRIRSIKKEVQ  
VIEKQRAVVEFEVNEDDVAHWYKDGIEINFQVQERHKYVVERRIHRMFISE  
TRQSDAGEYTFVAGRNRSSVTLYVNAPEPPQVLQELQPVTVQSGKPARFCV  
30 ISGRPQPKISWYKEEQLLSTGFKCKFLHDGQEYTLLEAFPEDAAVYTCEAK  
NDYGVATTASLSVEVPEVVSPPDQEMPVYPPAIITPLQDVTVTSEGQPARFQCR  
VSGTDLKVSWSYKDKKIKPSRFFRMTQFEDTYQLEIAEAYPEDEGTYTFVASN  
AVGQVSSTANLSLEVQALDRQSSGKD VRESTKSQAVADSSFTKEESKISQKEI  
KSFQGSSEYEVQVFESVSQSSIHTAASVQDTQLCHTASLSQIAESTELSKECA  
35 KESTGEAPKIFLHLQDVTVKCGDTAQFLCVLKDDSFIDVTWTHEGAKIEESER  
LKQSQNGNIQFLTICNVQLVDQGLYSCIVHNDGERTTSAVLSVEGAPESILHE  
RIEQEIEMEMKEFSSSFLSAEEGLHSAELQLSKINETLELLSESPVYSTKFDSE  
KEGTGPIFIKEVSNADISMGDVATLSVTVIGIPKPKIQWFFNGVLLTPSADYKF  
VFDGDDHSLIILFTKLEDEGEYTCMASNDYGKTICSAYLKINSKGEGHKDTET  
40 ESAVAKSLEKLGGPCPPHFLKELKPIRCAQGLPAIFEYTVVGEPAPTVTWFK  
NKQLCTSVYYTIIHNPNNGSGTFIVNDPQREDSGLYICKAENMLGESTCAAELL  
VLLEDTDMTDTPCAKSTPEAPEDFPQTPLKGPAVEALDSEQEIATFVKDTIL  
KAALITEENQQLSYEHIAKANELSSQLPLGAQELQSILEQDKLTPESTREFLCIN  
GSIHFQPLKEPSPNLQLQIVQSQKTFSEKILMPEEPETQAVLSDTEKIFPSAMSI  
45 EQINSLTVEPLKTLAEPEGNYPPQSSIEPPMHSYLTSVAEEVLSPEKTVSDTN  
REQRVTLQKQEAQSALILSQSLAEGHVESLQSPDVMISQVNYEPLVPSEHSCT  
EGGKILIESANPLENAGQDSAVRIEEGKSLRFLALEEKQVLLKEEHSDNVVM  
PPDQIIESKREPVAIKKVQEVQGRDLLSKESLLSGIPEEQRLNLKIQICRALQAA  
VASEQPGLFSEWLRNIEKVEVEAVNITQEPRHIMCMYLVTSAKSVTEEVTIII  
50 DVDPQMANLKMELRDALCAIIEIDILTAEGPRIQQGAKTSLQEEMDSFSGS

QKVEPITEPEVESKYLISTEEVSFNVQSRVKYLDATPVTKGVASAVVSDEKQ  
DESLKPSEEKEESSSESGETEEVATVKIQEAEGGLIKEDGPMIHTPLVDTVSEEG  
DIVHLTTSITNAKEVNWYFENKLVPSDEKFKCLQDQNTYTLVIDKVNTEDHQ  
GEYVCEALNDSGKTATSAKLTVVKRAAPVIKRIEPLVALGHLAKFTCEIQS  
5 APNVRFQWFKAGREIYESDKCSIRSSKYISSLEILRTQVVDCGEYTCKASNEYG  
SVSCTATLTVTPGGEEKVRKLLPERKPEPKEEVVLKSVLRKRPEEEEPKVEP  
KKLEKVKKPAVPEPPPPKPVVEVEVPTVTKRERKIEPTKVPEIKPAIPLPAPEP  
KPKPEAEVKTIKPPPVEPEPTPIAAPVTVPVVGKKAEEKAPKEEAAKPKGPIKG  
VPKKTSPSIEAERRKLPGSGGEKPPDEAPFTYQLKAVPLKFVKEIKDIILTESE  
10 FVGSSAIFECLVSPSTAITTWMKDGSNIRESPKHRFIADGKDRKLHIIDVQLSD  
AGEYTCVLRRLGNKEKTSTAKLVVEELPVRVFKTLEEEVTVVKGGQPLYLSCEL  
NKERDVVWRKDGKIVVEKPGRIVPGVIGLMRALTINDADDDTAGTYTVE  
NANNLECSSCVKVVEVIRDWLVKPIRDQHVKPKGTAIFACDIAKDTPNIKWF  
KGYDEIPAEPNDKTEILRDGNHLYLKIKNAMPEDIAEYAVEIEGKRYPAKLT  
15 GEREVELLKPIEDVTIYEKESASFDAEISEADIPGQWKLKGELLRPSPTCEIKAE  
GGKRFLT LHKVKLDQAGEVLYQALNAITTAILTVKEIELDFAVPLKDVTVPER  
RQARFECVLTREANVIWSKGPDIKSSDKFDIADGKKHILVINDSQFDDEGVY  
TAEVEGKKT SARLFVTGIRLKFMSPLEDQTVKEGETATFVCELSHEKMHVWV  
FKNDAKLHTSRTLISSEGKTHKLEMKEVTLDISQIKAQVKELSSTAQLKVL  
20 EADPYFTVKLHDKTAVEKDEITLKCEVSKDVPVKWFKDGEEIVPSPKYSIKAD  
GLRRILKIKKADLKD KGEYVCD CGTDKTKANVTVEARLIKVEKPLYGVEVVF  
GETAHFEIELSEPDVHGQWKLKGQPLTASPDCEIIEDGKKHILHNCQLGMT  
GEVSFQAANAKSAANLKV KELPLIFITPLSDVKVF EKDEAKFECEVSREP KTFR  
WLKGTQEITGDDRFELIKDGT KHS MVIKSAAFED EAKYMFEAEDKHTSGKLII  
25 EGIRLKF LTP LKDV TAKEKESAVFTVELSHDNIRVKWFKNDQRLHTTRSVSM  
QDEGKTHSITFKDLSIDDT SQIRVEAMGMSSEAKLTVLEGDPYFTGKLQDYTG  
VEKDEVILQCEISKADAPVKWFKDGKEIKPSKNAV KADGKKRMLILKKALK  
SDIGQYTCDCGTDKTS GKL DIEDREIKLVRPLHSVEVMETETARFETEISED  
HANWKLKG EALLQTPDCEIKEEGKIHSVLHNCRLDQTGGVDFQAANVKSS  
30 AHLRVKPRVIGLLRPLKDVTVTAGETATFDCELSYEDIPVEWYLGKKLEPSD  
KVVPRSEGVHTLTLRDVKLEDAGEVQLTAKDFKTHANL FVKEPPVEFTKPL  
EDQTVEEGATAVLECEVSRENAKV KWFKN GTEILKSKYEIVADGRVRKLVI  
HDCTPEDIKTYTCD AKDFK TSCNLNVPPHVEFLRPLTDLQVREKEMARFEC  
ELSRENAKV KWFKDGA EIKKGKKYDIISKGA VRILVINKCLLDDEAEYSCEVR  
35 TARTSGMLTVLEEEAVFTKNLANIEVSETDTIKLVCEVSKPGA EVIWYKGDEE  
IETGRYEILTEGRKRLVIQNAHLEDAGNYNCRLPSSRTDGKVKVHELAAEFI  
SKPQNLEILEGEKA E FVCSISKESFPVQWKRDDKTLES GDKYDVIADGKKRVL  
VVKDATLQDMGT YVVMVGAAARAAHLTVIEKL RIVVPLKDTRVKEQQEVV  
FNCEVNTEGAKAKWFRNEEAIFDSSKYIILQKDLVYTLRIRDAHLDDQANYN  
40 VSLTNH RGENVKSAANLIVEEEDLRIVEPLKDIETMEKKS VTFWCKVNRLNV  
TLKWTKN GEEV PFDNRVSYRVDKYKHMLTIKDCGFPDEGEYIVTAGQDKSV  
AELLII EAPTEFVEHLEDQTVTEFDDAVFSCQLSREKANVKWYRNGREIKEGK  
KYKFEKDGSIHRLI IKDCRLDDECEYACGVEDRKS RARLFVEEIPVEIIRPPQDI  
LEAPGADV VFLAELNKDKVEVQWLRNNM VVVQGD KHQMMSEGIHRLQIC  
45 DIKPRDQGEYRFIAKDKEARAKLELAAAPKIKTADQDLVVDVGKPLTMVVPY  
DAYPKAEAEWFKENEPLSTKTIDTTAEQTSFRILEAKKGDKGRYKIVLQNKH  
GKAEGFINLKVIDVPGPVRNLEVTETFDGEVSLAWEEPLTDGGSKIIGYVVER  
RDIKRKTWVLATDRAESCEFTVTGLQKGGVEYLFRVSARNRVGTGEPVETDN  
PVEARSKYDVPGPPLNVTITDVNRFGVSLTWEPPEYDGGAEITNYVIELRDKT  
50 SIRWDTAMTVRAEDLSATVTDVVEGQEYSFRVRAQNRIGVGKPSAATPFVKV

ADPIERPSPPVNLTSSDQTQSSVQLKWEPLKDGGSPILGYYIERCEEKDNWIR  
CNMKLVPELTYKVTGLEKGNKYLYRVSAENKAGVSDPSEILGPLTADDAFVE  
PTMDLSAFKDGLEVIVPNPITILVPSTGYPRPTATWCFGDKVLETGDRVKMKT  
LSAYAELVISPSERSDKGIYTLKLENRVKTISGEIDVNVIARPSAPKELKFGDIT  
5 KDSVHLTWEPPDDDDGGSPLTGYVVEKREVSRTWTKVMDFVTDLEFTVPDL  
VQGKEYLKFVCARNKCGPGEPAYVDEPVNMSTPATVPDPPENVKWRDRTAN  
SIFLTWDPPKNDGGSRIKGYIVERCPRGSDKWVACGEPVAETKMEVTGLEEG  
KWYAYRVKALNRQGASKPSRPTEEIQA VDTQEAP EIFLDVKLLAGLTVKAGT  
KIELPATVTGKPEPKITWTKADMILKQDKRITIENVPKKSTVTIVDSKRSDTGT  
10 YII EAVNVCGRATAVVEVNVLDKPGPPAAFDITDVTNESCLLTWNPPRDDGG  
SKITNYVVERRATDSEVWHKLSSTVKDTNFKATKLIPNKEYIFRVA AENMYG  
VGEPVQASPITAKYQFDPPGPPTLRLEPSDITKDAVTLTWCEPDDDDGGSPTGY  
WVERLDPD TDKWVR CNKMPVKD TTYRVKGLTNKKKYRFRVLAENLAGPGK  
PSKSTEPILIKDPIDPPWPPGKPTVKDVGKTSVRLNWT KPEHDGGAKIESYVIE  
15 MLKTGTDEWVRVAEGVPTTQHLLPGLMEGQEYSFRVRAVNKAGESEPS  
DPVLCREKLYPPSPPRWLEVINITKNTADLK WTVPEKDGGSPITNYIVEKRDV  
RRKGWQTVDTTVKDTKCTV TPLTEGSLYVFRVAAENAIGQSDYTEIEDSVLA  
KDTFTTPGPPYALAVVDVTKRHVDLKWEPPKNDGGRPIQRYVIEKKERLGTR  
WVKAGKTAGPDCNFRVTDVIEGTEVQFQVRAENEAGVGHPSEPT EILSIEDPT  
20 SPPSPPLDLHVTDA GRKHIAIAWK PPEKNGGSPIIGYHVEMCPVGTEKWMRV  
NSRPIKDLKFKVEEGVVPDKEYVLRVRAVNAIGVSEPS EISENVVAKDPDCKP  
TIDLETHDIIVIEGEKLSIPVPFRAVPVPTVSWHKDGKEVKASDRLTMKNDHIS  
AHLEVPKSVRADAGIYTITLENKLGSATASINVKVIGLPGPCKDIKASDITKSSC  
KLTWEPPEFDGGTPILHYVLERREAGRRTYIPVMSENGENKLSWTVKDLIPNGEY  
25 FFRVKA VNKVGGGEYIELKNPVIAQDPKQPPDPPVDVEVHNPTAEAMTITWK  
PPLYDGGSKIMGYIIEKIAKGEERWKRCNEHLVPILTYTAKGLEEGKEYQFRV  
RAENAAGISEPSRATPPTKA VDPIDAPKVILRTSLEV KRGDEIALDASISGSPYP  
TITWIKDENVIVPEEIKKRAAPLVRRRKGEVQEEEPFVLPLTQRLSIDNSKKGE  
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NVHLELPYKKGKPKPSISWLKDGLPLKESEFVRFSKTENKITLSIKNAKKEHGG  
KYTVILDNAVCRIAVPITVITLGPPSKPKGPIRFDEIKADSVILSWDVPEDN GGG  
EITCYSIEKRETSQTNWRMVCSSVARTTFKVPNLVKDAEYQFRVRAENRYGV  
SQPLVSSIIIVAKHQFRIPGPPGKPV IYNVTS DGM SLTWDAPVYDGGSEVTGFH  
25 VEKKERN SILWQKVNTSPISGREYRATGLVEGLDYQFRVYAENSAGLSSPSDP  
SKFTLAVSPVDPGTPDYIDVTRETITLKNPPLRDGGSKIVGYSIEKRQGNER  
WVRCNFTDVSECQYTVTGLSPGDRYEFRIIARNAVGTISPPSQSSGIIMTRDEN  
VPPIVEFGPEYFDGLIIKSGESLRIKALVQGRPVPRVTWFKD GVEIEKRMNMEI  
TDVLGSTSLFVRDATRDHRGVYTVEAKNASGSAKAEIKVKVQDTPGKVV GPI  
30 RFTNITGEKMTLWWDAPLNDGCAPITHYIIEKRETSRLAWALIEDKCEAQS YT  
AIKLINGNEYQFRVSAVNKFGVGRPLDSDPVVAQIQYTVPDAPGIPEPSNITGN  
SITLTWARPESDGGSEIQQYILERREKKSTRWVKVISKRPISETRFKVTGLTEG  
NEYEFHVMAENAAGVG PASGISRLIKREP VNP PGPTVVKVTDTSKTTVSLE  
WSKPVFDGGMEIIGYIEMCKADLG DWHKVNAEACVKTRYTVTDLQAGEEY  
35 KFRVSAINGAGKGDSC EVTGTIKA VDRLTAPELDIDANFKQTHVVRAGASIRL  
FIAYQGRPTPTAVWSKPDSNLSLRADIHTTDSFSTLTVEN CNRNDAGKYTLTV  
ENNSGSKSITFTVKVLDTPGPPGPITFKDVTRGSATLMWDAPLLDGGARIH HY  
VVEKREASRRSWQVISEKCTRQIFKVNDLAEGVPYYFRVSAVNEYGVGEPEY  
MPEPIVATEQPAPPRRLDVVDTSKSSAVLAWLKP DHDGGS RITGYLLEM RQK  
40 GSDFWVEAGHTKQLTFTVERLVEKTEYEFRVKAKNDAGYSEP REAFSSVIIKE  
PQIEPTADLTGITNQLITCKAGSPFTIDVPISGRPA PKVTWKLEEMRLKETDRVS  
ITTTKDRTTLTVKDSMRGDSGRYFLTLENTAGVKTF SVTVVVIGRPGPVTGPI  
EVSSVSAESCVLSWGEPKDGGGTEITNYIVEKRESGTTAWQLVNSSVKRTQIK  
VTHLTKYMEYSFRVSSENRFGVSKPLESAPIIAEHPFVPPSAPTRPEVYHVSAN  
45 AMSIRWEEPYHDGGSKIIGYWVEKKERN TILWVKENK VPCLECNKYVTGLVE  
GLE YQFRTYALNAAGVSKASEASRPIM AQNPVDAPGRPEVTDVTRSTVSLIW  
SAPAYDGGSKVVG YIIERKPVSEVG DGRWLKCNYTIVSDNFFT V TALSEGDT  
YEFRLAKNAAGVISKGSESTGPVTCRDEY APPKAELDARLHGDLVTIRAGS  
DLVLDAAVGGKPEPKIIWTKGDKELDLCEK VSLQYTGKRATAVIKFCDRSDS  
50 GK YTLTVKNASGTKAVSVMVKVLDSPGPCGKLT VSRVTQEKCTLAWSLPQE

DGGAEITHYIVERRETSRLNWVIVEGECPTLSYVVTRLIKNNEYIFRVRAVNK  
YGPVGPVESEPIVARNSFTIPSPGPIEEVGTGKEHIIIQWTKPESDGGNEISNYL  
VDKREKKSRLRWTRVNKDYVVYDTRLKVTSLMEGCDYQFRVTAVNAAGNSE  
PSEASNFIGREPSYTPGPPSAPRVVDTTKHSISLAWTKPMYDGGTDIVGYVLE  
5 MQEKDTDQWYRVHTNATIRNTEFTVPDLKMGQKYSFRVA AVNVKGMSEYS  
ESIAEIEPVERIEIPDLELADDLKKTVTIRAGASRLMVS VSGRPPP VITWSKQG  
IDLASRAIIDTTESYSLIVDKVNRDAGKYTIEAENQSGKKSATVLVKVYDTP  
GPCPSVKVKEVSRDSVTITWEIPTIDGGAPVNNYIVEKREAA MRAFKTVTTKC  
SKTLYRISGLVEGTMYYFRLPENIYGIGEPCETSDAVLVSEVPLVPAKLEV  
10 DVTKSTVTLAWEKPLYDGGSRLTGYVLEACKAGTERWMKVVT LKPTVLEHT  
VTSLNEGEQYLFRIRAQNEKGVSEPRETVTA VTVQDLRVLPTIDLSTMPQKTI  
HVPAGRPVELVIPIAGRPPPAASWFFAGSKLRESERVTVETHTKVAKLTIRETT  
IRDTGEYTLELKNVTGTTSETIKVIILDKPGPPTGPIKIDEIDATSITISWEPPELD  
GGAPLSGYVVEQRDAHRPGWLPVSES VTRSTFKFTRLTEGNEYVFRVAATNR  
15 FGIGSYLQSEVIECRSSIRIPGPPE TLQIFDVSRDGMTLTWYPPEDDGGSQVTGY  
IVERKEVRADRWRVNKVPVTMTRYRSTGLTEGLEYEHRVTAINARGSGKPS  
RPSKPIVAMDPIAPPGKPQNPRVTDTRTSVSLAWSVPEDEGGSKVTGYLIEM  
QKVDQHEWTKCNTTPTKIREYTLTHLPQGA EYRFRVLACNAGGPGEPAEVP  
TVKVTEMLEYPDYELDERYQEGIFVRQGGVIRLTIPIKGKPF PICKWTKEGQDI  
20 SKRAMIATSEHTELVIKEADRGD SGTYDLVLENKCGKKA VYIKVRVIGSPNS  
PEGPLEYDDIQVRSVRVSWRPPADDGGADILGYILERREVPKAAWYTIDSRVR  
GTSLVVKGLKENVEYHFRVSAENQFGISKPLKSEEPVTPK TPLNPPEPPSNPPE  
VLDVTKSSVSLSWSRPKDDGGSRTGY YIERKETSTDKWVRHNKTQITTTMY  
TVTGLVPDAEYQFRIIAQNDVGLSETSPASEPVVCKDPFDKPSQPGELEILSISK  
25 DSVTLQWEKPECDGGKEILGYWVEYRQSGDSAWKKS NKERIKDKQFTIGGL  
LEATEYEFRVFAENETGLSRPRRTAMSIKTKLTSGEAPGIRKEMKDVTTKLGE  
AAQLSCQIVGRPLPDIK WYRFGKELIQSRKYKMSSDGRTHLTVMTEEQEDE  
GVYTCIATNEVGEVETSSKLLLQATPQFHPGYPLKEKYYGAVGSTLRLHVMY  
IGRPVPAMTWFGQKLLQNSENITIENTEHYTHLVMKNVQRKTHAGKYKVQ  
30 LSNVFGTVDAILDVEIQDKPKPTGPIVIEALLKNSAVISWKPPADDGGSWITN  
YVVEKCEAKEGAEWQLVSSAISVTTCRIVNLTENAGYYFRVSAQNTFGISDPL  
EVSSVVIKSPFEKPGAPGKPTITAVTKDSCVVAWKPPASDGGAKIRNYYLEK  
REKKQNKWISVTTEEIRETVFSVKNLIEGLEYEFRVKCENLGGESEWSEISEPIT  
PKSDVPIQAPHFKEELRNLNVRYQSNATLVCKVTGHPKPIVKWYRQGKEIID  
35 GLKYRIQEFKGGYHQLIIASVTD DDATVYQVRATNQGGSVSGTASLEVEVPA  
KIHLPKTLEGMGAVHALRGEVVS IKIPFSGKPD PVITWQKGQDLIDNNGHYQV  
IVTRSFTSLVFPNGVERKDAGFYV VCAKNRFGIDQKTVELDVADVPDPPRGV  
KVSDVSRDSVNLTWTEPASDGGSKITNYIVEKCATTAERWLRVGQARETRYT  
VINLFGKTSYQFRVIAENKFGLSKPSEPSEPTITKEDKTRAMNYDEEVDETREV  
40 SMTKASHSSTKELYEKYMAEDLGRGEFGIVHRCVETSSK KTYMAKFVKVKG  
TDQVLVKKEISILNIARHRNHLHESFESMEELVMIFE FISGLDIFERINTSAFE  
LNEREIVSYVHQVCEALQFLHSHNIGHFDIRPENIIYQTRRSSTIKIIEFGQARQL  
KPGDNFRLLFTAPEYYAPEVHQHDV VSTATDMWSLGLTVYVLLSGINPFLAE  
TNQQIIENIMNAEYTFDEEAFKEISIEAMDFVDRLLVKERKSRMTASEALQHP  
45 WLKQKIERVSTKVIRTLKHRRYYHTLIKKDLNMVVS AARISCGGAIRSQKGV  
VAKVKVASIEIGPVSGQIMHAVGEEGHVKYVCKIENYDQSTQVTWYFGVR  
QLENSEKYEITYEDGVAILYVKDITKLDDGTYRCKVVNDYGEDSSYAELFKV  
GVREYDYDYYCRRTMKKIKRRTDTMRLLERPPEFTLPLYNKTA YVGENVRFG  
VTITVHPEPHVTWYKSGQKIKPGDNDKKYTFESDKGLYQLTINSVTDDDDAE  
50 YTVVARNKYGEDSCKAKLTVTLHPPPTDSTLRPMFKRLLANAECQEGQSVCF



**SEQ ID NO: 112**

**Figure 55- Partial cDNA Nucleotide Sequence Encoding the Amino Acid Sequence of SEQ ID NO: 16 (891 nucleotides in total)**

5 5'-GGAATCATGCATCGGACTACACGGATCAAAATCACAGAGCTGAACCCC  
CACCTCATGTGTGCCCTCTGCGGGGGGTACTTCATCGACGCCACCACTATC  
GTGGAGTGCCTGCATTCTTCTGCAAAACCTGCATCGTGCGCTACCTGGAG  
ACCAACAAATACTGCCCCATGTGTGACGTGCAGGTCCATAAAACCCGGCC  
GCTGCTGAGCATCAGGTCTGACAAAACACTTCAAGACATTGTCTACAAAT  
10 TGGTCCCTGGGCTTTTTAAAGATGAGATGAAACGGCGGGCGGGATTCTAT  
GCAGCGTACCCCCTGACGGAGGTCCCCAACGGCTCCAATGAGGACCGCGG  
CGAGGTCTTGAGCAGGAGAAGGGGGCTCTGAGTGATGATGAGATTGTCA  
GCCTCTCCATCGAATTCTACGAAGGTGCCGGGGACCGGGACGAGAAGAAG  
GGCCCCCTGGAGAATGGGGATGGGGACAAAGAGAAAACAGGGGTGCGCT  
15 TCCTGCGATGCCCAGCAGCCATGACCGTCATGCATCTTGCCAAGTTTCTCC  
GCAACAAGATGGATGTGCCCAGCAAGTACAAGGTGGAGGTTCTGTACGAG  
GACGAGCCACTGAAGGAATACTACACCCTCATGGACATCGCCTACATCTA  
CCCCTGGCGGGCGGAACGGGCCTCTCCCCCTCAAGTACCGTGTCCAGCCAG  
CCTGCAAGCGGCTCACCTAGCCACGGTGCCACCCCCCTCCGAGGGCACC  
20 AACACCAGCGGGGCGTCCGAGTCCAGTGGGGCCACCACAGCTGCCAACG  
GGGGTAGCTTGAAGTGCCTGCAGACACCATCCTCCACCAGCAGGGGGCGC  
AAGATGACTGTCAACGGCGCTCCCGTGCCCCCCTTAAGTTGA-3'

**SEQ ID NO: 113**

25 **Figure 56- Partial cDNA Nucleotide Sequence Encoding the Amino Acid Sequence of SEQ ID NO: 26 (SEQ ID NO: 113)**

AGTCCGTACAGTCCCCGGGGCGGCTCCAATGTCATCCAGTGCTACCGCTG  
CGGAGACACCTGCAAAGGGGAGGTGGTCCGTGTCCACAACAACCACTTCC  
30 ACATCCGATGCTTCACTTGTCAAGTATGTGGATGTGGCCTGGCCCAGTCGG  
GCTTCTTCTTCAAGAACCAGGAGTACATCTGCGCCCAGGACTACCAACAG  
CTTTATGGCACCCGCTGTGATAGCTGCCGGGACTTCATCACGGGTGAGGTC  
ATCTCTGCCCTGGGCCGTACCTACCGCCCTAAATGCTTCGTATGCAGCTTG  
TGCAGGAAGCCTTTCCCTATTGGAGATAAGGTGACCTTCAGTGGGAAAGA  
35 ATGTGTATGTCAGACGTGCTCCCAGTCAATGACCAGCAGCAAGCCGATCA  
AGATCCGTGGACCAAGCCACTGTGCTGGGTGCAAAGAGGAGATTAAACAT  
GGCCAGTCACTTCTGGCACTGGACAAGCAGTGGCACGTCAGCTGTTTCAA  
ATGCCAGACCTGTAGCGTCATCCTCACTGGGGAATACATTAGCAAAGACG  
GTGTTCCATACTGCGAGTCTGACTACCACTCCCAGTTTGGCATCAAATGTG  
40 AGACTTGTGACCGGTACATCAGTGGCAGGGTCTTGGAGGCAGGAGGGAA  
AACTACCACCCTACCTGTGCCAGATGTGTACGCTGCCACCAGATGTTTAC  
TGAGGGGGAGGAGATGTATCTCACAGGTTCTGAGGTTTGGCACCCAATCT  
GCAAGCAGGCAGCCAGGGCAGAGAAGAAG-3'

45 **SEQ ID NO: 114**

**Figure 57- Partial cDNA Nucleotide Sequence Encoding the Amino Acid Sequence of SEQ ID NO: 33 (723 nucleotides in total)**

50 5'-GCAACATCAGGTGACTGTCCCAGAAGTGAATCGCAGGGAGAAGAG  
CCTGCTGAGTGCAGTGAGGCGGGTCTCCTGCAGGAGGGAGTACAGCC

AGAGGAGTTTGTGGCCATCGCGGACTACGCTGCCACCGATGAGACCC  
AGCTCAGTTTTTTGAGAGGAGAAAAAATTCTTATCCTGAGACAAACCA  
CTGCAGATTGGTGGTGGGGTGAGCGTGCGGGCTGCTGTGGGTACATT  
CCGGCAAACCTATGTGGGGAAGCACGTGGATGAGTACGACCCCGAGGA  
5 CACGTGGCAGGATGAAGAGTACTTCGGCAGCTATGGAACCTGAAAC  
TCCACTTGGAGATGTTGGCAGACCAGCCACGAACAACCTAAATACCACA  
GTGTCATCCTGCAGAATAAAGAATCCCTGACGGATAAAGTCATCCTGG  
ACGTGGGCTGTGGGACTGGGATCATCAGTCTCTTCTGTGCACACTATG  
CGCGGCCTAGAGCGGTGTACGCGGTGGAGGCCAGTGAGATGGCACAG  
10 CACACGGGGCAGCTGGTCCTGCAGAACGGCTTTGCTGACATCATCAC  
CGTGTACCAGCAGAAGGTGGAGGATGTGGTGCTGCCCCGAGAAGGTGG  
ACGTGCTGGTGTCTGAGTGGATGGGGACCTGCCTGCTGAAGCAGCAA  
AGTTCTGAGGGAGACGCAAGTAAAGATACCACAGGTGTCCTAGATTGT  
CAACAGACCATTAA-3'

15

**SEQ ID NO: 115**  
**FHOS (810-1100 AA)**

QLVQNATFRCILATLLAVGNFLNGSQSSGFELSYLEKVSVDVKD TVRRQSL LHH  
20 L CSLVLQTRPESSDLYSEIPALTRCAKVDFEQLTENLGQLERRSRAAEESLRSL  
AKHELAPALRARLTHFLDQCARRVAMLRIVHRRVCNRFHAFLLYLGYTPQA  
AREVRIMQFCHTLREFALEYRTCRRVLQQQQKQATYRERNKTRGRMITETE  
KFSGVAGEAPSNPSVPVAVSSGPGRGDADSHASMKSLLSRLED TTHNRRSR  
GMVQSSSPIMPTVGPSTASPEEPPGSSLP

25

**SEQ ID NO: 116**  
**FHOS (951-1164 AA)**

CNRFHAFLLYLGYTPQAAREVRIMQFCHTLREFALEYRTCRRVLQQQQKQA  
30 TYRERNKTRGRMITETEEKFSGVAGEAPSNPSVPVAVSSGPGRGDADSHASMK  
SLLSRLED TTHNRRSRGMVQSSSPIMPTVGPSTASPEEPPGSSLPSDTSDEIMD  
LLVQSVTKSSPRALAAARERKRSRGNRKS LRRTLKSGLGDDL VQALGLSKGPG  
LEV

35

**SEQ ID NO: 117**  
**FHOS (1001-1164 AA)**

QATYRERNKTRGRMITETEEKFSGVAGEAPSNPSVPVAVSSGPGRGDADSHAS  
MKSLLSRLED TTHNRRSRGMVQSSSPIMPTVGPSTASPEEPPGSSLPSDTSDEI  
40 MDLLVQSVTKSSPRALAAARERKRSRGNRKS LRRTLKSGLGDDL VQALGLSKG  
PGLV

**SEQ ID NO: 118**  
**mLRRFIP1 129-328**

45

CSNLGLPSSGLASKPLPTQNGSRASMLDESSLYGARRGSACGSRAPSEYGSHL  
NSSSRASSRASSARASPVVEERPKDFAEKGSRNMPSLSAATLASLGGTSSRR  
GSGDTSISMDTEASIREIKELNELKDQIQDVEGKYMQLKEMKDSLAEVEEK  
YKKAMVSNAQLDNEKTNFMYQVDTLKDMLELEEQLAESQRQ

**SEQ ID NO: 119**  
**mAPC2 12-148**

5 VRQVEALKAENTHLRQELRDNSSHLSKLETETSGMKEVLKHLQGKLEQEAR  
VLVSSGQTEVLEQLKALQTDISSLYNLKFHAPALGPEPAARTPEGSPVHGSGP  
SKDSFGELSRATIRLLEELDQERCFLLEIEKE

**SEQ ID NO: 120**

10 **mCYLN2(1047) 631-996**

DLKATLNSGPGAQQKEIGELKALVEGIKMEHQLELGNLQAKHDLETAMHGK  
EKEGLRQKLQEVQEELAGLQQHWREQLQEEQASQHRLELQEAQDQCRDAQLR  
AQELEGLDVEYRGQAQAIEFLKEQISLAEEKMLDYEMLRQAEASQRQEAERL  
15 REKLLVAENRLQAAESLCSAQSHSVIESSDLSEETIRMKETVEGLQDKLNKRD  
KEVTALTSQMDMLRAQVSALENKCKSGEKKIDSLLKEKRRLEAELEAVSRKT  
HDASGQLVHISQELLRKERSLNLRLVLLLEANRHSPGPERDLSREVHKAEWRI  
KEQKLKDDIRGLREKLTGLDKEKSLSEQRRYSLIDPASPELLKLQHQVLSTE  
D

20

**SEQ ID NO: 121**  
**mACTN3 355-508**

25 QTKLRLSHRPAFMPSEGKLVSDIANAWRGLEQVEKGYEDWLLSEIRRLQRLQ  
HLAEKFQQKASLHEAWTRGKEEMLNQHDYESASLQEVRLRRHEAFESDL  
AAHQDRVEHVAALAQELNELDYHEAASVNSRCQAICDQWDNLGTLTHKRR  
D

**SEQ ID NO: 122**

30 **mDTNBP1 1-242**

MLETLRERLLSVQQDFTSGLKTLSDKSREAKVKGKPRTAPRLPKYSAGLELLS  
RYEDAWAALHRRAKECADAGELVDSEVVMLSAHWEEKRTSLNELQGQLQQ  
LPALLQDLESLMASLAHLETSEFEVENHLLHLEDLCGQCELERHKQAQAQHL  
35 ESYKKSRRKELEAFKAELDTEHTQKALEMEHSQQLKLERQKFFEEAFQQD  
MEQYLSTGYLQIAERREPMGSMSSMEVNVDVLKQLD

**SEQ ID NO: 123**

**Figure 63- Partial Amino Acid Sequence (mTAKEDA013) AA1-197**

40

EKGIKLLQAQKLVQYLRECEDVMDWINDKEAIVTSEELGQDLEHVEVL  
QKKFEEFQTDLAAHEERVNEVSQFAAKLIQEQHPPEELIKTKQDEVNA  
AWQRLKGLALQRQGKLFGAAEVQRFNRDDETIGWIKKEQLMASDD  
FGRDLASVQALLRKHEGLERDLAALEDKVKALCAEADRLQQSHPLSAS  
45 QIQGKR

**SEQ ID NO: 124**  
**m14-3-3g 73-247**

50 DGNEKKIEMVRAYREKIEKELEAVCQDVLSLLDNYLIKNCSETQYESKVFYLK

MKGDYYRYLAEVATGEKRATVVESSEKAYSEAHEISKEHMQPTHPIRLGLALN  
YSVFYIEIQNAPEQACHLAKTAFDDAIAELDTLNEDSYKDSTLIMQLLRDNLTL  
LWTSDDQDDGGEGNN

5 **SEQ ID NO: 125**  
**m14-3-3zeta 56-245**

RSSWRVSSIEQKTEGAEEKQQMAREYREKIETELRDICNDVLSLLEKFLIPNA  
SQPESKVFYLYLKMKGDDYYRYLA EVAAGDDKKGIVDQSQQAYQEA FEISKKEM  
10 QPTHPIRLGLALNFSVFYIEILNSPEKACSLAKTALDEAIAELDTLSEESYEDST  
LIMQLLRDNLTLWTSDDQDEAEAGEGGEN

**SEQ ID NO: 126**  
**14-3-3zeta 19-245**

15 YDDMAACMKSVTEQGAELSNEERNLLSVAYKNVVGARRSSWRVSSIEQKT  
EGAEEKQQMAREYREKIETELRDICNDVLSLLEKFLIPNASQAESKVFYLYLKM  
GDYYRYLA EVAAGDDKKGIVDQSQQAYQEA FEISKKEMQPTHPIRLGLALNFS  
SVFYIEILNSPEKACSLAKTAFDEAIAELDTLSEESYKDSTLIMQLLRDNLTLW  
20 TSDTQDEAEAGEGGEN

**SEQ ID NO: 127**  
**14-3-3zeta 20-210**

25 DDMAACMKSVTEQGAELSNEERNLLSVAYKNVVGARRSSWRVSSIEQKTE  
GAEEKQQMAREYREKIETELRDICNDVLSLLEKFLIPNASQAESKVFYLYLKM  
GDYYRYLA EVAAGDDKKGIVDQSQQAYQEA FEISKKEMQPTHPIRLGLALNFS  
SVFYIEILNSPEKACSLAKTAFDEAIAELDTLSEES

30 **SEQ ID NO: 128**  
**m14-3-3b 59-230**  
SSWRVISSIEQKTERNEKKQQMKGKEYREKIEAELQDICNDVLELLDKY  
LILNATQAESKVFYLYLKMKGDFRYLSEVASGENKQTTVSNSQQAYQEA  
FEISKKEMQPTHPIRLGLALNFSVFYIEILNSPEKACSLAKTAFDEAIAE  
35 LDTLNEESYKDSTLIMQLLRDNLTLW

**SEQ ID NO: 129**  
**m14-3-3theta 82-245**

40 YREKVESELRSICTTVLELLDKYLIANATNPESKVFYLYLKMKGDFRYLA  
EVACGDDRKQTIENSQGAYQEA FDISKKEMQPTHPIRLGLALNFSVFY  
EILNNPELACTLAKTAFDEAIAELDTLNEDSYKDSTLIMQLLRDNLTLW  
TSDSAGEECDAEGAEN

45 **SEQ ID NO: 130**  
**14-3-3theta 81-245**

DYREKVESELRSICTTVLELLDKYLIANATNPESKVFYLYLKMKGDFRYLA  
AEVACGDDRKQTIDNSQGAYQEA FDISKKEMQPTHPIRLGLALNFSVF

YYEILNNPELACTLAKTAFDEAIAELDTLNEDSYKDSTLIMQLLRDNLTLWTSDSAGEECDAAE GAEN

**SEQ ID NO: 131**

5 mSPNB2 825-1032

10 TRLRKQALQDTLALYKMFSEADACELWIDEKEQWLNNMQIPEKLEDL  
EVVQHRFESLEPEMNNQASRVAVVNQIARQLMHNGHPSEEREIRAQQD  
KLNTRWSQFRELVD RKKDALLSALSIQSYHLECNETKSWIREKTKVIES  
TQDLGNDLAGVMALQRKLTGMERDLVAIEAKLSDLQKEAEKLESEHP  
DQAQAILSRLAEISDVWE

**SEQ ID NO: 132**

**Figure 71- Partial Amino Acid Sequence (BC020494(124)) (SEQ ID NO: 132)**

15 **AA 1-124**

DDAAVETAEEAKEPAEADITELCRDMFSKMATYLTGELTATSEDYKLL ENMNK  
LTSLKYLEMKDIANISRN LKDLNQKYAGLQPYLDQINVIEEQVAALEQAAYK  
LDAYSKKLEAKYKKLEKR

20

**SEQ ID NO: 133**

**MACF1 3984-4240**

25 EKLQPSFEALKRRGEELIGRSQGADKDLAAKEIQDKLDQMVFVWEDIKARAE  
EREIKFLDVLELA EKFWYDMAALLTTIKDTQDIVHDLESPGIDPSIIKQQVEAA  
ETIKEETDGLHEELEFIRILGADLIFACGETEKPEVRKSIDEMNNAWENLNKTW  
KERLEKLEDAMQAAVQYQDTLQAMFDWLDNTVIKLCTMPPVGTDLNTVKD  
QLNEMKEFKVEVYQQQIEMEKLNHQGELMLKKATDETDRDIIREPLT

30 **SEQ ID NO: 134**

**MYH11560-1700**

35 GKILRIQLELNQVKSEVD RKIAEKDEEIDQMKRNHIRIVESMQSTLDAEIRSRN  
DAIRLKKKMEGDLNEMEIQLNHANRMAAEALRNYRNTQAILKDTQLHLDDA  
LRSQEDLKEQLAMVERGANLLQAEIEELRATLEQTE

**SEQ ID NO: 135**

**MPPGB 32-207**

40 CLPGLAKQPSFRQYSGYL RASDSKHFHYWFVESQNDPKNSPVVLWLNNGPG  
CSSLDGLLTEHGPFLIQPDGVTLEYDPYAWNLIANVLYIESPAGVGFSYSDDK  
MYLTNDTEVAENNYEALKDFFRLFPEYKDNKFLTGTGESYAGIYIPTLAVLVM  
QDPSMNLQGLAVGNGLASYE

45 **SEQ ID NO: 136**

**mZYX 230-506**

50 HVQPQPVS SANTQPRGPLSQAPTPAPKFAPVAPKFTPVVSKFSPGAPSGPGPQP  
NQKMVPPDAPSSVSTGSPQPPSFTYAQQKEKPLVQEKQHPQPPPAQNQNQVR  
SPGGPGPLTLKEVEELEQLTQQLMQDMEHPQRQSVAVNESCGKCNQPLARA

QPAVRALGQLFHITCFTCHQCQQQLQGQQFYSLGAPYCEGCTDTLEKCN  
CGQPITDRMLRATGKAYHPQCFTCVVCACPLEGTSFIVDQANQPHCVDPYHK  
QYAPRC SVCSEPIMPE

5 **SEQ ID NO: 137**  
**MPRKCABP 1-382**

MFADLDYDIEEDKLGIPVPGKVTLQKDAQNLIGISIGGGAQYCPCLYIVQVF  
DNTPAALDGTVAAGDEITGVNGKSIKGTKVEVAKMIEVKGEVTIHYNKLQ  
10 ADPKQGMSLDIVLKKVKHRLVENMSSGTADALGLSRAILCNDGLVKRLEELE  
RTAELYKGMTEHTKNLLRAFYELSQTNRAFGDVFSVIGVREPQPAASEAFVK  
FADAHRSIEKLGIKLLKTIKPMITDLNTYLNKAIPDTRLTIKKYLDVKFEYLSY  
CLKVKEMDDEEYSCIALGEPLYRVSTGNYEYRLILRCRQEARARFSQMRKDV  
LEKMELLDQKHVQDIVFQLQRFVSTMSKYND CYAVLRDADVFPIEVDLAH  
15 TTLAYGPNQGSFTDGE

**SEQ ID NO: 138**  
**MMYLK 568-897**

20 TYTCLAENAMGQVSCSATVTVQEKKGEGERKHRLSPARSKPIAPIFLQGLSDL  
KVMDGSQVTMTVQVSGNPPPEVIWLHDGNEIQESEDHFHEQKGGWHS LCIQE  
VFPEDTGTYTCEAWNSAGEVRTRAVLTVQEPHDGTQPWFISKPRSVTATLGQ  
SVLISCAIAGDPFSTGHWLRDGRALSKDSGHFELLQNEVDVFTLV LKNVQPWH  
AGQYEILLKNRVGECSCQVSLMLHNSPSRAPPRGREPASCEGLCGGGGVGAH  
25 GDGDRHGTLRPCWPARGQGWP EEEEDGEDVRGLLKRRVETRLHTEEAIRQQE  
VGQLDFRDLLGEKVSTKT

**SEQ ID NO: 139**  
**Figure 58- Full-length Amino Acid Sequence (mLRRFIP1)**

30 MTSPEGAQNKEIDCLSP EAQRLAEARLAAKRAARAEAREIRMKELERQQKEI  
YQVQKKYYGLDTKWGDIEQWMEDSERYSRFRNTSASDERLSVGSRGSL  
LRTNGYDGDYCGSQSLSRSGRGLSCSNLGLPSSGLASKPLSTQNGSRASMLD  
ESSLYGARRGSACGSRAPSEYGSHLNSSSRASSRASSARASPVVEERPKDFA  
35 EKGSRNMPSLSAATLASLGGTSSRRGSGDTSISMDTEASIREIKELNELKDQIQ  
DVEGKYMQGLKEMKDSLAEVEEKYKKAMVSNAQLDNEKTNFM YQVDTLK  
DMLLELEEQLAESQRQYEEKNKEFEREKHAHSILQFQFAEVKEALRQREML  
EEIRQLQKQAGFIREISDLQETIEWKDKKIGALERQKEFFDSIRSERDDLREET  
VKLKEELKKHGIILNSEIATNGETSDTVNDVGYQAPT KITKEELNALKSAGEG  
40 TLDVRLKKLIDERECLLEQIKKLKGQLEGRQKNNKLDLLRAEDGILENGTDA  
HVMDLQRDANRQISDLKFKLAKSEQETALEQNVIRLESQVTRYRSAAENAE  
KIEDELKAEKRKLQRELRSALDKTEELEVSNGHLVKRLEKMKANRSALLSQQ

**SEQ ID NO: 140**  
**Figure 59- Full-length Amino Acid Sequence (mAPC2)**

45 MTSSMASYEQLVRQVEALKAENTHLRQELRDNSSHL SKLETETSGMKEVLK  
HLQGKLEQEARVLVSSGQTEVLEQLKALQTDISSLYNLKFHAPALGPEPAART  
PEGSPVHGSGPSKDSFGELSRATIRLLEELDQERCFL LSEIEKEEKEKLWYYSSQ  
50 LQGLSKRLDELPHVDTFSMQMDLIRQQLEFEAQHIRSLMEERFGTSD EMVQR

AQIRASRLEQIDKELLEAQDRVQQTEPQALLAVKPVAVEEEQAEVPTHPE  
 TPQPGNSKVEVFWLLSMLATRDQEDTARTLLAMSSSPESCVAMRRSGCLPL  
 LLQILHGTEAGSVGRAGIPGAPGAKDARMRANAALHNIVFSQPDQGLARKEM  
 RVLHVLEQIRAYCETCWDWLQARDSGTETPVPIEPQICQATCAVMKLSFDEE  
 5 YRRAMNELGGLQAVAELLQVDYEMHKMTRDPLNLALRRYAGMTLTNLTFG  
 DVANKATLCARRGCMEDIAVAQLGSESEELHQVVSSILRNLSWRADINSKKVL  
 REVGSMTALMECVLRASKESTLKSLSALWNLSAHSTENKAAICQVDGALGF  
 LVSTLTYRCQGNLAVIESGGGILRNVSLSIATREDYRQVLRDHNCLQTLLQH  
 LTSHSLTIVSNACGTLWNLSARSPRDQELLWDLGAVGMLRNLVHSHKHKMIA  
 10 MGSAAALRNLLAHRPAKYQAAAMAVSPGTCVPSLYVRKQRALEAELDTRHL  
 VHALGHLEKQSLPEAETTSKKPLPLRLHLDGLVQDYASDSGCFDDDDAPS  
 LA AATTAEPASPAVMSMFLGGPFLQGQALARTPPARQGGLEAEKEAGGEAAV  
 AAKAKAKLALAVARIDRLVEDISALHTSSDDSFSLSSGDPGQEAPREGRAQSC  
 SPCRGTGGRRREAGSRAHPLRLKAAHTSLSNDSLNSGSTSDGYCTREHMT  
 15 CPLAALAEHRDDPVRGQTRPRRLDLDLPSRAELPARDTAATDARVRTIKLSPT  
 YQHVPLLDGAAGAGVRPLVGPSTPGARKQAWIPADSLSKVPEKLVASPLPI  
 ASKVLQKLVAQDGPMSLSRCSSLSLSSTGHAVPSQAENLSDSSLEGLEEAG  
 PGAEELGRAWRASGSTSLPVSIPAPQRGRSRLGVEDATPSSSENCEVQETPL  
 VLSRCSSVSSLGSFESRSIASSIPSDPCSGLSGTVSPSELPDSPGQTMPPSRSKT  
 20 PPAPPGQETSQFSLQWESYVKRFLDIADCRERCQPPSELDAGSVRFTVEKPDE  
 NFSCASSLSALALHELYVQQDVELRLRPPACPERAVGGGGHRRRDEAASRLD  
 GPAPAGSRARSATDKELEALRECLGAAMPARLRKVASALVPGRSLPVPVY  
 MLVPAPARGDDSGTDSAEGTPVNFSSAASLSDETQGPSRDKPAGPGDRQKP  
 TGRAAPARQTRSHRPAAGAGKSTEHTRGPCNRAGLELPLSRPQSARSNRD  
 25 SSCQTRTRGDGALQSLCLTTPTEEA VYCFYDSDEEPPATAPPPRRASAI  
 PRAK REKPAGRKETPSRAAQPATLPVRAQPRLIVDETPPCYSLTSSASSLSEPEAEQ  
 ANHARGPEQGSKQDSSPSRAEEELLQRCISLAMPRRRRTQVPGSRRRKPRALR  
 SDIRPTEITQKCQEEVAGSDPASDLSVEWQAIQEGANSIVTWLHQAAAKASL  
 EASSESLSLSLVSGVSAGSTLQPSKLRKGRKPAAEAGGAWRPEKRGTTSTKI  
 30 NGSPRLPNGPEKAKGTQKMMAGESTMLRGRTVIYSAGPASRTQSKGISGPCT  
 TPKKTGTSGTTQPETVTKAPSPEQQRSLHRPGKISELAALRHPPRSATPPAR  
 LAKTPSSSSSSQTSPASQPLPRRSPLATPTGGPLPGPGGSLVPKSPARALLAKQH  
 KTQKSPVRIPFMQRPARRVPPPLARSPPEGSRGRAGAEGTPGARGSRLGLVR  
 MASARSSGSESSDRSGFRRQLTFIKESPGLLRRRRSELSSADSTASTSQAASPR  
 35 RGRPALPAVFLCSSRCDELRVSPRQPLAAQRSPQAKPGLAPLAPRRTSSESPSR  
 LPVRASPGRPETVKRYASLPHISVSRRSDSAVSVPTTQANATRGS DGEARPL  
 PRVAPPGTTWRRIKDEDVPHILRSTLPATALPLRVSSPEDSPAGTPQRKTS  
 DAV VQTEDVATSKTNSSTSPSLESRDPPQAPASGPVAPQGS DVG PVLTKPPASAPF  
 PHEGLSAVIAGFPTS RHGSPSRAARVPPFNYVPSPMAAATMASDSAVEKAPVS  
 40 SPASLLE

**SEQ ID NO: 141**

**Figure 60- Full-length Amino Acid Sequence (mCYLN2(1047))**

45 MQKPSGLKPPGRGGKHSSPVGRPSVGSASSSVVASTSGSKEGSPLHKQASGPS  
 SSGAAATVSEKPGPKAAEVGDDFLGHFVVGGERVWVNGVKPGVVQYLGETQF  
 APGQWAGVVLDDPVGKNDGAVGAVRYFECALQGIFTRPSKLTRQPTAEGSG  
 SDTHSVESLTAQNLSLHSGTATPPLTGRVIPLRESVLNSSVKTGNEGSNLSDSG  
 SVKRGDKDLHLGDRVLVGGTKTG VVRYVGETDFAKGEWCGVELDEPLGKN  
 50 DGAVAGTRYFQCPPKFGLFAPIHKVIRIGFPSTSPAKAKKTKRMAMGV SALTHS

PSSSSISSVSSVASSVGGPASRSGLLTETSSRYARKISGTIALQEALKEKQQHIEQ  
 LLAERDLERA EVA KATSHICEVEKEIAL LKAQHEQYVAEAEK LQRARLLVEN  
 VRKEKVDLSNQLEEERRKVEDLQFRVEEESITKGDLETQTQLEHARIGELEQS  
 LLEKAQAERLLRELADNRLTTVAEKSRVLQEEELSLRRGEIEELQHCLLQSG  
 5 PPPADHPEAAETLRLRERLLSASKEHQDDSTLLQDKYEHMLKTYQTEVDKLR  
 AANEKYAQEVADLKAKVQQATTENMGLMDNWKSKLDSLASHQKSLEDLK  
 ATLNSGPGAQQKEIGELKALVEGIKMEHQLELGNLQAKHDLETAMHGKEKEG  
 LRQKLQEVQEELAGLQQHWREQLQEEQASQHRLELQEAQDQCRDAQLRVQEL  
 EGLDVEYRGQAQAIEFLKEQISLAEKKMLDYEMLQRAEAQSRQEAERLREKL  
 10 LVAENRLQAAESLCSAQHSHVIESSDLSEETIRMKETVEGLQDKLNKRDKVET  
 ALTSQMDMLRAQVSVLENKCKSGEKKIDSLLEKEKRRLEAELEAVSRKTHDAS  
 GQLVHISQELLRKERSLNELRVLLLEANRHSPGPERDLSREVHKA EWRIKEQK  
 LKDDIRGLREKLTGLDKEKSLSEQRYSLIDPASPELLKLQHQLVSTEDALRD  
 ALNQAQQVERLVEALRGCSDRQTISNSGSANGIHQPDKAHKQEDKH

15

**SEQ ID NO: 142**

**Figure 61- Full-length Amino Acid Sequence (mACTN3)**

MMMVMQPEGLGAGEGPFSGGGGGGEYMEQEEDWDRDLLLLDPAWEKQQRKT  
 20 FTAWCNSHLRKAGTQIENIEEDFRNGLKMLLLEVISGERLPRPDKGKMRFBK  
 IANVNKALDFIASKGVKLVSIGAEIVDGNLKM TLMGIWTHIRFAIQDISVEET  
 SAKEG LLLWCQRKTAPYRNVNVQNFHTSWKDGLALCALIHRHRPDLIDYAKL  
 RKDDPIGNLNTAFEVAEKYLDIPKMLDAEDIVNTPKPDEKAIMTYVSCFYHAF  
 AGAEQAETAANRICKVLAVNQENELMEEYEKLASELLEWIRRTVPWLENRV  
 25 GEPSMSAMQRKLEDFRDYRRLHKPPRVQEKQCQLEINFNTLQTKLRLSHRPAF  
 MPSEGKLVSDIANAWRGLEQVEKGYEDWLLSEIRRLQRLQHLAEKFQQKASL  
 HEAWTRGKEEMLNQHDYESASLQEV RALLRRHEAFESDLAAHQDRVEHIAA  
 LAQELNELDYHEAASVNSRCQAICDQWDNLGTLTQKRRDALERMEKLLETID  
 QLQLEFARRAAPFNNWLDGAIEDLQDVWLVSVEETQSLTAHEQFKATLPE  
 30 ADRERGAILGIQGEIQKICQTYGLRPKSGNPYITLSSQDINNKWDTVRKLVPSR  
 DQTLQEELARQQVNERLRRQFAAQANAIGPWIQGVVEVGR LAAGLAGSLEE  
 QMAGLRQQEQNIINYKSNIDRLEGDHQLLQESLVFDNKHTVYSMEHIRVGWE  
 QLLTSIARTINEVENQVLTRDAKGLSQEQLNEFRASFNFDRKRNGMMEPDDF  
 RACLISMGYDLGEVEFARIMTMVDPNAAAGVVTQAFIDFMTRETAETDTAEQ  
 35 VVASFKILAGDKNYITPEELRRELPAEQAEYCIRRM APYKGS GAPSGALDYVA  
 FSSALYGESDL

**SEQ ID NO: 143**

**Figure 62- Full-length Amino Acid Sequence (mDTNBP1)**

40

MLETLRERLLSVQQDFTSGLKTLSDKSREAKVKGKPRTAPRLPKYSAGLELLS  
 RYEDAWAALHRRAKECADAGELVDSEVVMLSAHWEKKRTSLNELQGQLQQ  
 LPALLQDLESLMASLAHLETSFEEVENHLLHLEDLCGQCELERHKQAQAQHL  
 ESYKKSKRKELEAFKAELDTEHTQKALEMEHTQQLK LKERQKFFEEAFQQD  
 45 MEQYLSTGYLQIAERREPMGSMSSMEVNVDVLEQMDLMDISDQEALDVFLN  
 SGGEDNIVMSPGVEMESNPQNEMSLQIPSPSESASQPPASPSACTDLDTADAP  
 LIQSDEEEVQVDTALVTLHTDRKSTPGVSDDSDQCDSTQDI

50

**SEQ ID NO: 144**

**Figure 64- Full-length Amino Acid Sequence (m14-3-3g)**

5 MVDREQLVQKARLAEQAERYDDMAAAMKNVTELNEPLSNEERNLLSVAYK  
NVVGARRSSWRVISSIEQKTSADGNEKKIEMVRAYREKIEKELEAVCQDVLSL  
LDNYLIKNCSETQYESKVFYLMKMGDYYRYLAEVATGEKRATVVESFEKAYS  
EAHEISKEHMQPTHPIRLGLALNYSVFYYEIQNAPEQACHLAKTAFDDAIAEL  
DTLNEDSYKDSTLIMQLLRDNLTWTSDDQDDGGEGNN

10 **SEQ ID NO: 145**

**Figure 65- Full-length Amino Acid Sequence (m14-3-3zeta)**

MDKNELVQKAKLAEQAERYDDMAACMKSVTEQGAELSNEERNLLSVAYKN  
VVGARRSSWRVSSIEQKTEGAEEKQQMAREYREKIETELRDICNDVLSLLE  
15 KFLIPNASQPESKVFYLMKMGDYYRYLAEVAAGDDKKGIVDQSQQAYQEAFE  
ISKKEMQPTHPIRLGLALNFSVFYYEILNSPEKACSLAKTAFDEAIAELDTLSEE  
SYKDSTLIMQLLRDNLTWTSDTQGDEAEAGEGGEN

**SEQ ID NO: 146**

20 **Figure 66- Full-length Amino Acid Sequence (14-3-3zeta)**

MDKNELVQKAKLAEQAERYDDMAACMKSVTEQGAELSNEERNLLSVAYKN  
VVGARRSSWRVSSIEQKTEGAEEKQQMAREYREKIETELRDICNDVLSLLE  
KFLIPNASQAESKVFYLMKMGDYYRYLAEVAAGDDKKGIVDQSQQAYQEAF  
25 EISKKEMQPTHPIRLGLALNFSVFYYEILNSPEKACSLAKTAFDEAIAELDTLSE  
ESYKDSTLIMQLLRDNLTWTSDTQGDEAEAGEGGEN

**SEQ ID NO: 147**

**Figure 67- Full-length Amino Acid Sequence (m14-3-3b)**

30 MTMDKSELVQKAKLAEQAERYDDMAAAMKAVTEQGHLSNEERNLLSVAY  
KNVVGARRSSWRVISSIEQKTERNEKKQQMGKEYREKIEAELQDICNDVLELL  
DKYLILNATQAESKVFYLMKMGDYFRYLSEVASGENKQTTVSNSQQAYQEAF  
EISKKEMQPTHPIRLGLALNFSVFYYEILNSPEKACSLAKTAFDEAIAELDTLNE  
35 ESYKDSTLIMQLLRDNLTWTSNQDGEDAGEGEN

**SEQ ID NO: 148**

**Figure 68- Full-length Amino Acid Sequence (m14-3-3theta)**

40 MEKTELIQKAKLAEQAERYDDMATCMKAVTEQGAELSNEERNLLSVAYKNV  
VGGRSAWRVISSIEQKTDTSKKLQLIKDYREKVESELRSICTTVLELLDKYL  
IANATNPESKVFYLMKMGDYFRYLAEVACGDDRKQTIENSQGAYQEAFDISK  
KEMQPTHPIRLGLALNFSVFYYEILNPELACTLAKTAFDEAIAELDTLNEDSY  
45 KDSTLIMQLLRDNLTWTSDSAGEECDAAEGAEN

**SEQ ID NO: 149**

**Figure 69- Full-length Amino Acid Sequence (14-3-3theta)**

MEKTELIQKAKLAEQAERYDDMATCMKAVTEQGAELSNEERNLLSVAYKNV  
5 VGGRRSAWRVISSIEQKTDTSKKLQLIKDYREKVESELRSICTTVLELLDKYL  
IANATNPESKVFYLMKMGDYFRYLAEVACGDDRKTIDNSQGAYQEAFDISK  
KEMQPTHPIRLGLALNFSVFYYEILNNPELACTLAKTAFDEAIAELDTLNEDSY  
KDSTLIMQLLRDNLTLWTSDSAGEECDAAEGAEN

**10 SEQ ID NO: 150**

**Figure 70- Full-length Amino Acid Sequence (mSPNB2)**

NH<sub>2</sub>-MELQRTSSVSGPLSPA YTGQVPYNNQLEGRFKQLQDEREAVQKKTFT  
KWNNSHLARVSCRITDLYTDLRDGRMLIKLLEVLSGERLPKPTKGRMRIHCL  
15 ENVDKALQFLKEQRVHLENMGSHDIVDGNHRLTLGLIWTIILRFQIQDISVETE  
DNKEKKSADALLWCQMKTAGYPNVNIHNFTTSWRDGMFANALIHKHRP  
DLIDFDKLKKSNAHYNLQNAFNLAEQHLGLTKLLDPEDISVDHPDEKSIITYV  
VTYYHYFSKMKALAVEGKRIGKVLDAIETEKMIKEYETLASDLLEWIEQTHI  
LNNRKFANSLVG VQQQLQAFNTYRTVEKPPKFTEKGNLEVLLFAIQSKMRAN  
20 NQKVYMPREGKLISDINKA WERLEKAEHERELALRNELIRQEKLEQLARRFD  
RKAAMRETWLSNQRLVSQDNFGFDLPAVEAATKKHEAIETDIAAYEERVQ  
AVVAVARELEAENYHDIKRITARKDNVIRLWEYLLELLRARRQRLEMNLGLQ  
KIFQEMLYIMDWMDKMLVLLLSQDYGKHLGVEDLLQKHALVEADIAIQAE  
RVRGVNASAQKFATDGEQYKPCDPQVIRDRVAHMEFCYQELCQLAAERRAR  
25 LEESRRLWKFFWEMAE EEGWIREKEKILSSDDYGKDLTSVMRLLSKHRAFED  
EMSGRSGHFEQAIKEGEDMIAEEHFGSEKIRERIIYIREQWANLEQLSAIRKKR  
LEEASLLHQFQADADDIDA WMLDILKIVSSNDVGHDEYSTQSLVKKHKDVAE  
EITNCRPTIDTLHEQASALPQAHAE SPDVKGRLAGIEERCKEMAELTRLRKQA  
LQDTLALYKMFSEADACELWIDEKEQWLNNMQIPEKLEDLEVIQHRFESLEP  
30 EMNNQASRVAVVNQIARQLMHNGHPSEKEIRAQQDKLNTRWSQFRELVDRK  
KDALLSALSQNYHLECNETKSCIREKTKVIESTQDLGNDLAGVMALQCKLTG  
MERDLVAIEAKLSDLQKEAEKLESEHPDQAQAILSRLAEISDVWEEMKTTLK  
NREASLGEASKLQQFLRDLDDFQSWLSRTQTAIASEDMPNTL TEAEKLLTQH  
ENIKNEIDNYEEDYQKMRDMGEMVTQGQTD AQYMFLRQRLQALDTGWNEL  
35 HKMWENRQNLLSQSHAYQQFLRDTKQAE AFLNNQEYVLAHTEMPTTLEGA  
EAAIKKQEDFMTTMDANE EKINAVVETGRRLVSDGNINS DRIQEKVDSIDDR  
HRKNREAASELLMRLKDNRLQKFLQDCQELSLWINEKMLTAQDMSYDEAR  
NLHSLWLKHQAFMAELASNKEWLDKIEKEGMQLISEKPETEAVVKEKLTGL  
HKMWEVLESTTQTKAQR LFDANKAELFTQSCADLDKWLHGLESQIQSDDYG  
40 KDLTSVNILLKKQQMLENQMEVRKKEIEELQSQAQALSQEGKSTDEVDSKRL  
TVQTKFMELLEPLSERKHNL LASKEIHQFN RDVEDEILWVG ERMPLATSTDH  
GHNLQTVQLLIKKNQTLQKEIQGHQPRIDDIFERSQNIITDSSSLNAE AIRQLA  
DLKQLWGLLIEETEKRRHRL EEAHKAQQYYFDAEAEAWMSEQELYMMSE  
EKAKDEQS AVSMLKKHQILEQAVEDYAETVHQLSKTSRALVADSH PESERIS  
45 MRQSKVDKLYAGLKD LAEERRGKLDERHRLFQLNREVDDLEQWIAEREVVA  
GSHELGDYEHVTMLQERFREFARDTGNIGQERVDTVNNMADELINS GHSD  
AATIAEWKDGLNEAWADLLELIDTRTQILAASYELHKFYHDAKEIFGRIQDKH  
KKLPEELGRDQNTVETLQRMHTTFEHD IQALGTQVRQLQEDAARLQAAYAG  
DKADDIQKRENEVLEAWKSLLDACEGR RVRLVDTGDKFRFFSMVRDLMLW  
50 MEDVIRQIEAQEKPRDVSSVELLMNNHQGIKAEIDARND SFTACIELGKSLLA

RKHYASEEIKEKLLQLTEKRKEMIDKWEDRWEWRLILEVHQFSRDASVAEA  
WLLGQEPYLSSREIGQSVDEVEKLIK RHEAFEKSAATWDERFSALERLTTLEL  
LEVRRQQEEEEERKRPPSPDPNTKVSEEAESQQWDTSKGDQVSQNGLP AEQG  
SPRVSYRSQTYQNYKNFNSRRTASDHSWSGM

5

**SEQ ID NO: 151**

**Figure 72- Full-length Amino Acid Sequence (MACF1) (SEQ ID NO: 151)**

MSSSDEETLSERSCRSERSYRSERSGSLSPCPPGDTLPWNLPLHEQKK  
10 RKSQDSVLDPAERA VVRVADERDRVQKKTFTKWVNKHLMKVRKHINDLYE  
DLRDGHNLISLLEVLSGIKLPREKGRMRFHRLQNVQIALDFLKQRQVKLVNIR  
NDDITDGNPKLTLGLIWTIILHFQISDIYISGESGDMSAKEKLLLWTQKV TAGY  
TGIKCTNFSSCWS DGKMFNALIHRYPDLVDMERVQIQSNRENLEQAFEVAE  
15 RLGVTRLLDAEDVDVPS PDEKSVITYVSSIYDAFPKVPEGGEGISATEVDSRW  
QEYQSRVDSLIPWIKQHTILMSDKTFPQNPVELKALYNQYIHFKETEILAKERE  
KGRIEELYKLLLEVWIEFGRIKLPQGYHPNDVEEEWGKLIIEMLEREKSLRPAVE  
RLELLLQIANKIQNGALNCEEKLTAKNTLQADAAHLESGQPVCESDVIMYI  
QECEGLIRQLQVDLQILRDENYYQLEELAFRVMRLQDELVTLRLECTNLYRK  
GHFTSLELVPPSTLTTHLKAEP LTKATHSSSTSWFRKPMTRAELGPSAPLKM  
20 KAISDLCMNYCLWVEEMQMKLERA EWGNDLPSVELQLETQQHIHTSVEELG  
SSVKEARLYEGKMSQNFHTSYAETLGKLETQYCKLKETSSFRMRHLQSLHKF  
VSRATAELIWLNEKEEEEELAYDWS DNNSNISAKRNYFSELTMELEEKQDVFR  
SLQDTAELLSLENHPAKQTVEA YSAAVQSQLQWMKQLCLCQE QHV KENTAY  
FQFFSDARELESFLRN LQDSIKRKYSCDHNTSLSRLEDLLQDSMDEKEQLIQSK  
25 SSVASLVGRSKTIVQLKPRSPDHVLKNTISVKA VCDYRQIEITICKNDEC VLED  
NSQRTKWKVISPTGNEAMVPSVCFLIPPNKDAIEMASRVEQSYQKVMALWH  
QLHVNTKSLISWNYLRKDL DLVQTWNLEKLRSSAPGECHQIMKNLQAHYED  
FLQDSRDSVLF SVADRLRLEEEVEACKARFQHLMKSMENEDKEETVAKMYIS  
ELKNIRLRLEEYEQRVVKRIQSLASSRTDRDAWQDNALRIAEQEHTQEDLQQ  
30 LRSDLD AVSMKCDSFLHQSPSSSVPTLRSELNLLVEKMDHVYGLSTVYLNK  
LKTVDVIVRSIQDAELLVKG YEIKLSQEEVVLADLSALEAHWSTLRHWLSDV  
KDKN SVFSVLDEEIAKAKVVAEQMSRLTPERNLDLERYQEKGSQ LQERWHR  
VIAQLEIRQSELESIQEVLGDYRACHGTLIKWIEETTAQQEMMKPGQAEDSRV  
LSEQLSQQTALFAEIERNQTKLDQCQKFSQQYSTIVKDYELQLMTYKAFVESQ  
35 QKSPGKRRRMLSSSDAITQEFMDLRTRYTALVTLTTQHV KYISDALRRLEEEE  
KVVEEEKQEHVEKV KELLGWVSTLARNTQGKATSSETKESTDIEKAILEQQV  
LSEELTTKKEQVSEAIKASQIFLAKHGHKLSEKEKKQISEQLNALNKAYHDL C  
DGSANQLQQLQSQLAHQTEQKTLQKQ QNTCHQQLEDLCSWVGQAERALAG  
HQGR TTQQDLSALQKNQSDLKDLQDDIQNRATSFATVVKDIEGFMEENQTKL  
40 SPRELTALREKLHQAKEQYEALQEETRVAQKELEEAVTSALQQETEKSKAAK  
ELAENKKKIDALLDWVTSVGS SGGQLLTNLPGMEQLSGASLEKGALD TTDG  
YMGV NQAPEKLDKQCEMMKARHQELLSQQQNFILATQSAQAFLDQHGHNL  
TPEEQQMLQQKL GELKEQYSTSLAQSEAE LKQVQTLQDELQKFLQDHKEFES  
WLERSEKELENMHKGGSSPETLP SLLKRQGSFSEDVISHKGD LRFVTISGQKV  
45 LDMENSFKEGKEPSEIGNLVKDKLKDATERY TALH SKCTRLGSHLNM L LGQY  
HQFQNSADSLQAWMQACEANVEKLLSDTAASDPGV LQEQLATT KQLQEELA  
EHQVPVEKLQKVARDIMEIEGEPAPDHRHVQET TDSILSHFQSLSYSLAERSSL  
LQKAIAQSQSVQDSLESLLQSIGEVEQNLEGKQVSSLSSGVIQEALATNMK LK  
QDIARQKSSLEATREMVTRFMETADSTTAAVLQGKLA EVSQRFEQLCLQQQE  
50 KESSLKKLLPQAEMFEHLSGKLQQFMENKSRMLASGNQPDQDITHFFQIQIE

LNLEMEDQQENLDTLEHLVTELSSCGFALDLCQHQDRVQNLRKDFTELQKTV  
KEREKDASSCQEQLDEFRLVRTFQKWLKETEGSIPPTETSMSAKELEKQIEH  
LKSLLDDWASKGTLVEEINYKGTSLENLIMEITAPDSQGKTGSILPSVGSSVGS  
VNGYHTCKDLTEIQCDMSDVNLKYEKLGGVLHERQESLQAILNRMEEVHKE  
5 ANSVLQWLESKEEVLKSMDAMSSPTKTETVKAQAESNKAFLAELEQNSPKIQ  
KVKEALAGLLVTYPNSQEAENWKKIQEELNSRWERATEVTVARQRQLEESA  
SHLACFQAAESQLQPWLMEKELMMGVLGPLSIDPNMLNAQKQQVQFMLKEF  
EARRQQHEQLNEAAQGILTGPGDVSLSTSQVQKELQSINQKWVELTDKLNRS  
SSQIDQAIVKSTQYQELLQDLSEKVRVAVGQRLSVQSAISTQPEAVKQQLEETS  
10 EIRSDLEQLDHEVKEAQTLCDELSVLIGEYKDELKKRLETVALPLQGLEDL  
AADRINRLQAALASTQQFQQMFDELRTWLDDKQSQQAKNCPISAKLERLQSQ  
LQENEEFQKSLNQHSGSYEVIVAEGESLLSVPPGEEKRTLQNQLVELKNHWE  
ELSKKTADRQSRKDCMQKAQKYQWHVEDLVPWIEDCKAKMSELRVTLDP  
VQLESSLLRSKAMLNEVEKRRSLLEILNSAADILINSSEADEDGIRDEKAGINQ  
15 NMDAVTEELQAKTGSLEEMTQRLREFQESFKNIEKKVEGAKHQLEIFDALGS  
QACSNKNLEKLRAQQEVLQALEPQVDYLRNFTQGLVEDAPDGSDASQLLHQ  
AEVAQQEFLEVKQRVNSGCVMMENKLEGIGQFHCVRVREMFSQLADLDELD  
GMGAIGRDTDSLQSQIEDVRLFLNKIHVLKLDIEASEAECRHMLEEGLDLDL  
GLKRELEALNKQCGKLTERGKARQEQLTLGRVEDFYRKLKGLNDATTAA  
20 EEAEALQWVVGTEVEIINQQLADFKMFQKEQVDPLQMKLQQVNLGQGLIQ  
SAGKDCDVQGLEHDMEEINARWNTLNKKVAQRIQLQEALLHCGKFQDALE  
PLLSWLADTEELIANQKPPSAEYKVVKAAQIQEQKLLQRLDDRKATVDMQLQA  
EGGRIAQSAELADREKITGQLESLESRWTELLSKAAARQKQLEDILVLAKQFH  
ETAEPISDFLSVTEKKLANSEPVGTQTAQIQQQIIRHKALEEDIENHATDVHQA  
25 VKIGQSLSSLTSPAEEQGVLSEKIDSLQARYSEIQDRCCRKAALLDQALSNAFLF  
GEDEVEVLNWLAEVEDKLSSVFVKDFKQDVLHRQHADHLALNEEIVNRKKN  
VDQAIKNGQALLKQTTGEEVLLIQEKLDGIKTRYADITVTSSKALRTLEQARQ  
LATKFQSTYEELTGWLREVEEELATSGGQSPTGEQIPQFQQRQKELKKEVME  
HRLVLDTVNEVSRALLELVWRAREGLDKLVSDANEQYKLVSDTIGQRVDEI  
30 DAAIQRSQQYEQAADAELAWVAETKRKLMALGPRLQDQTTAQLQVQKAF  
SIDIIRHKDSMDELFSHRSEIFGTCGEEQKTVLQEKTESLIQQYEAISLLNSERY  
ARLERAQVLVNQFWETYEELSPWIEETRALIAQLPSAIDHEQLRQQQEEMRQ  
LRESIAEHKPHIDKLLKIGPQLKELNPEEGEMVEEKYQKAENMYAQIKEEVQR  
RALALDEAVSQSTQITEFHDKIEPMLTLENLSSRLRMPPLIPAEVDKIRECISD  
35 NKSATVELEKLQPSFEALKRRGEELIGRSQGADKDLAAKEIQDKLDQMVFFW  
EDIKARAEEREIKFLDVLELAEKFWYDMAALLTTIKDTQDIVHDLSPGIDPSII  
KQQVEAAETIKEETDGLHEELEFIRILGADLIFACGETEKPEVRKSIDEMNNAW  
ENLNKTWKERLEKLEDAMQAAVQYQDTLQAMFDWLDNTVIKLCMPVGT  
DLNTVKDQLNEMKEFKVEVYQQQIEMEKLNHQGELMLKKATDETDRDIIRE  
40 PLTELKHLWENLGEKIAHRQHKLLEGALLALGQFQHALEELMSWLTHTEELLD  
AQRPISGDPKVIEVELAKHHVLKNDVLAHQATVETVKNAGNELLESSAGDDA  
SSLRSRLEAMNQCWESVLQKTEEREQQLQSTLQQAQGFHSEIEDFLLLTRME  
SQLSASKPTGGLPETAREQLDTHMELYSQKAKEETYNQLLDKGRMLLLSRD  
DSGSGSKTEQSVALLEQKWHVVSSEMEERKSKLEEALNLATEFQNSLQEFIN  
45 WLTLAEQSLNIASPPSLILNTVLSQIEEHKVFANEVNAHRDQIIELDQTGNQLK  
FLSQKQDVVLKLNLLSVQSRWEKVQVQSIERGRSLDDARKRAKQFHEAWK  
KLIDWLEDAESHLDELEISNDPDKIKLQLSKHKEFQKTLGGKQPVYDTTIRT  
GRALKEKTLTPEDTQKLDNFLGEVRDKWDTVCGKSVERQHKLEEALLFSGQ  
FMDALQALVDWLYKVEPQLAEDQPVHGDLDLVMNLMDAHKVFQKELGKR  
50 TGTVQVLKRSGRELIENSRRDDTTWVKGQLQELSTRWDTVCKLSVSKQSRLEQ

ALKQAEVFRD TVHMLLEWLSEAEQTLRFRGALPDDTEALQSLIDTHKEFMKK  
 VEEKRVDVNSAVAMGEVILAVCHPDCITTIKHWITIIRARFEEVLTWAKQHQQ  
 RLETALSELVANAELLEELLAWIQWAETTLIQRDQEPQNPIDRVKALIAEHQT  
 FMEEMTRKQPDVDRVTKYKRKNIEPTHAPFIEKSRSGGRKSLSQPTPPMPIL  
 5 SQSEAKNPRINQLSARWQQVWLLALERQRKLNDALDRLEELKEFANFDFDV  
 WRKKYMRWMNHKKSRVMDFFRRIDKDQDGKITRQEFIDGILASKFPTTKLE  
 MTAVADIFDRDGDGYIDYYEFVAALHPNKDAYRPTTDADKIEDEVTRQVAQ  
 CKCAKRFQVEQIGENKYRFGDSQQLRLVRILRSTVMVRVGGGWMADEFVLV  
 KNDPCRARGRTNIELREKFILPEGASQGMTPFRSRGRRSKPSSRAASPTRSSSS  
 10 ASQSNHSCTSMPSPATPASGTKVIPSSGSKLKRPTPTFHSSRTSLAGDTSNSSS  
 PASTGAKTNRADPKKSASRPGSRAGSRAGSRASSRRGSDASDFDLLETQSACS  
 DTSESSAAGGQGNRRGLNKPSKIPTMSKKTTTASPRTPGPKR

**SEQ ID NO: 152**

15 **Figure 73- Full-length Amino Acid Sequence (MYH1)**

MSSDSEMAIFGEAAPFLRKSERERIEAQNKPFDAKTSVFVVDPKESFVKATVQ  
 SREGGKVTAKEAGATVTVKDDQVPMNPPKYDKIEDMAMMTHLHEPAVL  
 YNLKERYAAWMIYTYSGLFCVTVNPKWLPVYNAEVVTAYRGKKRQEAPP  
 20 HIFSISDNAYQFMLTDRENQSILITGESGAGKTVNTKRVIQYFATIAVTGEKKK  
 EEVTSGKMQGTLEDQIISANPLLEAFGNAKTVRNDNSSRFGKFIRIHFGTTGKL  
 ASADIETYLLEKSRVTFQLKAERSYHIFYQIMSNKKPDLIEMLLITNPDYAF  
 VSQGEITVPSIDDEELMATDSAIEILGFTSDERSIYKLTGAVMHYGNMKFK  
 QKQREEQAEPDGTEVADKAAYLQNLNSADLLKALCYPRVKVGNFYVTKGQ  
 25 TVQQVYNAV GALAKAVYDKMFLWMVTRINQQLDTKQPRQYFIGVLDIAGFE  
 IFDFNSLEQLCINFTEKLQQFFNHMHFVLEQEYKKEGIEWTFIDFGMDLAA  
 CIELIEKPMGIFSILEEECMFPKATDTSFKNKLYEQHLGKSNNFQKPKPAKGKP  
 EAHFSLIHYAGTVDYNIAGWLDKNKDPLNETVVGLYQKSAMKTLALLFVGA  
 TGAEAEAGGGKKGGKKKGSSFTVSALFRENLNKLMTNLRSTHPPHVRCIIP  
 30 NETKTPGAMEHELVLHQLRCNGVLEGIRICRKGFP SRILYADFKQRYKVLNAS  
 AIPEGQFIDSKKASEKLLGSIDIDHTQYKFGHTKVFFKAGLLGLEEMRDEKL  
 AQLITRTQAMCRGFLARVEYQKMVERRESIFCIQYNVRAFMNVKHWPWMKL  
 YFKIKPLLKSAETEKEMANMKEEFKTEELAKTEAKRKELEEKMTLMQE  
 KNDLQLQVQAEADSLADAERCDQLIKTKIQLEAKIKEVTERAEDEEEINAEL  
 35 TAKKRKLEDECESELKKDIDDLTLAKVEKEKHATENKVKNLTEEMAGLDET  
 IAKLTKEKKALQEAHQQTLDLQAEEDKVNTLTAKIKLEQQVDDLEGSLEQ  
 EKKIRMDLERAKRKLEGDLKLAQESAMDIENDKQQLDEKLKKKEFEMSGLQ  
 SKIEDEQALGMQLQKKIKELQARIEELEEIEAERASRAKAEKQRSLSRELEE  
 ISERLEEAGGATSAQIEMNKKREAEFQKMRRDLEEATLQHEATAATLRKKHA  
 40 DSV AELGEQIDNLQRVKQKLEKEKSEMMEIDDLASNMETVSKAKGNLEKM  
 CRALEDQLSEIKTKEEEQQLINDLTAQRLQTESGEYSRQLDEKDTLVSQ  
 SRGKQAFQTQIEELKRQLEEEIKAKSALAHALQSSRHDCDLLREQYEEEQEAK  
 AELQRAMSKANSEVAQWRTKYETDAIQRTTEELEEAKKKLAQRLQDAEEHVE  
 AVNAKCASLEKTKQRLQNEVEDLMIDVERTNAACAALDKKQRNFDKILAEW  
 45 KQKCEETHAELEASQKESRSLSTELFKIKNAYEESLDQLETLKRENKNLQQEIS  
 DLTEQIAEGGKRIHELEKIKKQVEQEKS ELQAAL EEAASLEHEEGKILRIQLE  
 LNQVKSEVDRKIAEKDEEIDQMKNRHIRIVESMQSTLDAEIRSRND AIRLKKK  
 MEGDLNEMEIQLNHANRMAAEALRNYRNTQAILKDTQLHLDDALRSQEDLK  
 EQLAMVERRANLLQAEIEELRATLEQTERSRIAEQELLDASERVQLLHTQNT  
 50 SLINTKKKLETDISQIQGEMEDIQEARNAEEKAKKAITDAAMMAEELKKEQD

TSAHLERMKKNLEQTVKDLQHRLDEAEQLALKGGKKQIQKLEARVRELEGE  
VESEQKRNVEAVKGLRKHERKV KELTYQTEEDRKNILRLQDLVDKLQAKVK  
SYKRQAEAEQSNVNL SKFRRIQHELEEAEERADIAESQVNKL RVKSREVHT  
KIISEE

5

**SEQ ID NO: 153**

**Figure 74- Full-length Amino Acid Sequence (mPPGB)**

MPGTALSPLLLLLLLSWASRNEAAPDQDEIDCLPGLAKQPSFRQYSGYL RASD  
10 SKHFHYWFVESQNDPKNSPVVLWLNNGPGCSSLDGLLTEHGPFLIQPDGVTLE  
YNPYAWNLIANVLYIESPAGVGFSYSDDKMYVTNDTEVAENNYEALKDFFRL  
FPEYKDNKLFLTGESYAGIYIPTLAVLVMQDPSMNLQGLAVGNGLASYEQNDN  
SLVYFAYYHGLLGNRLWTSLQTHCCAQNKC NFYDNKDPECVNNLLEVSRIVG  
KSGLNINLYAPCAGGV PGRHRYEDTLVVQDFGNIFTRLPLKRRFPEALMRSG  
15 DKVRLDPPCTNTTAPS NYLNNPYVRKALHIPESLPRWDMCNFLVNLQYRRLY  
QSMNSQYLKLLSSQKYQILLYNGD VDMACNFMGDEWFVDSL NQKMEVQRR  
PWLVDYGESGEQVAGFVKECSHITFLT IKGAGHMVPTDKPRAAFTMFSRFLN  
KEPY

20 **SEQ ID NO: 154**

**Figure 75- Full-length Amino Acid Sequence (mZYX)**

MAAPRPPPAISVSVSAPAFYAPQKKFAPVVAPKPKVNPFRPGDSEPPVAAGAQR  
AQMGRVGEIPPPPEDFPLPPPPLIGEGDDSEGALGGAFFFFPPPMIEEPFPAPL  
25 EEDIFSPPPPLEEEGGPEAPTQLPPQPREKVC SIDLEIDSLSSLLDDMTKNDPFK  
ARVSSGYVPPP VATPFV PKPSTKPA PGGTAPLPPWKTPSSSQPPQPQAKPVQ  
LHVQPQAKPHVQPQPVS SANTQPRGPLSQAPTPAPKFAPVAPKFTPVVSKFSPG  
APSGPGPQPNQKMVPPDAPSSVSTGSPQPPSFTYAQQKEKPLVQEKQHPQPPP  
AQNQNQVRSPGGPGPLTLKEVEELEQLTQQLMQDMEHPQRQSVAVNESCGKC  
30 NQPLARAQPAVRALGQLFHITCFTCHQCQQQLQGQQFY SLEGAPYCEGCYTD  
TLEKNTCGQPITDRMLRATGKAYHPQCFTCVVCACPLEGTSFIVDQANQPHC  
VPDYHKQYAPRC SVCSEPIMPEPGRDET VRVVALDKNFHMKCYKCEDCGKPL  
SIEADDNGCFPLDGHVLCRKCHSARAQT

35 **SEQ ID NO: 155**

**Figure 76- Full-length Amino Acid Sequence (mPRKCABP) (SEQ ID NO: 155)**

MFADLDYDIEEDKLG IPTVPGKVTLQKDAQNLIGISIGGGAQYCPCLYIVQVFD  
NTPAALDGTVAAGDEITGVNGKSIKGTKVEVAKMIQEVKGEVTIHYNKLQA  
40 DPKQGMSLDIVLKKVKHRLVENMSSGTADALGLSRAILCNDGLVKRLEELER  
TAELYKGMTEHTKNLLRAFYELSQTHRAFGDVFSVIGVREPQPAASEAFVKFA  
DAHRSIEKFGIRLLKTIKPM LDTLNTYLNKAIPDTRLTIKKYLDVKFEYLSYCL  
KVKEMDDEEYSCIALGEPLYRVSTGNYEYRLILRCRQEARARFSQMRKDVLE  
KMELLDQKHVQDIVFQLQRFVSTMSKY YND CYAVLQDADVFP IEVDLAHTTL  
45 AYGPNQGSFTDGEEDEEEEDGAAREVSKDACGATGPTDKGGSWCDS

50

**SEQ ID NO: 156**

**Figure 77- Full-length Amino Acid Sequence (mMYLK) (SEQ ID NO: 156)**

5 MGDVKLFASSHMSKTSHSVDP SKVSSMPLTEAPAFILPPRNLCVKEGATAKFE  
GRVRGYPEPQVTWHRKGQAITNGGRFLDCGVRGTFSLVIHTVREEDKGKYT  
CEASNGSGARQVTVELTVEGNSMKKRDQPVLSKASGFPGETRPSIWGECPPK  
FATKLGRAVVKEGQMGRFSCKITGRPPPQVTWLKGNVPLQPSARVSMSEKN  
GMQILEIRGVTRDDLGVYTCMVVNGSGKASMSAELSIPGLDNAARLAVRGT  
10 KAPSPDIRKEVTNGVSKDPETVAESKNCPSPQRS GSSARATNSHLKSPQEPKP  
KLCEDAPRKVPQSSILQKSTSTITLQALKVQPEARVPAIGSFSPGEDRKSLAAP  
QQATLPTRQSSLGGSVGNKFVTGNIPRESQRESTFPRFESQPQSQEVTEGQTVK  
FICEVSGIPKPDVGWFLEGIPVRRREGITEVYEDGVSHHLCLLRARTRDSGRYS  
CTASNSLGQVSCSWSLLVDRPNLAQTAPSFSSVLKDSV VIEGQDFVLRC SVQG  
15 TPAPRVTWLLNGQPIQFAHSICEAGVAELHIQDALPEDRGTYTCLAENAMGQ  
VSCSATVTVQEKKGEGEREHRLSPARSKPIAPIFLQGLSDLKVM DGSQVTMTV  
QVSGNPPPEVIWLHDGNEIQESEDHFHEQKGGWHS LCIQEVFPEDTGTYTCEA  
WNSAGEVRTRAVLTVQEPHDGTQPWFISKPRSVTATLGQSVLISCAIAGDPFP  
TVHWLRDGRALSKDSGHFELLQNEDEVFTLV LKNVQ PWHAGQYEILLKNRVG  
20 ECSCQVSLMLHNSPSRAPPRGREPASCEGLCGGGGVGAHGDGDRHGT LRPC  
WPARGQGWP EEEEDGEDVRGLLKRRVETRLHTEEAIRQQE V GQLDFRDLLGK  
KVSTKTVSEDDLKDIPAEQMDFRANLQRQVKPTISEEERKVHSPQQVD FR S  
VLAKKGTPKTPVPEKAPPKAATPDFRSVLGGKKKSPSENGGNSAEVLNVKAG  
ESPTPAGDAQAIGALKPVGNAPKPAETPKPIGNAKPTETLKPVGNTKPAETLKPI  
25 ANAQPSGSLKPVTNAQPAEPQKPVGNAKSAETSKPAGKEEVKEVKNDVNCK  
KGQVGATGNEKRPESQGSAPVFKEKLQDVHVAEGEKLLLQCQVISDPPATVT  
WSLNGKTLKTTKFIVLAQEGSRFSV SIEKALPEDRGLYKCVAKNSAGQAECSC  
QVTVDDAQTSENTKAPEMKSRRPKSSLPPVLGTESDATVKKK PAKTPTKAA  
MPPQIIQFPEDQKVRAGEPVELFGKVAGTQPITCKWMKFRKQIQESEHIKVEN  
30 GESGSKLTILAA RQEHCGCYTLVVENKLGSRQAQVNLT VVDKPDPPAGTPCA  
SDIRSSSLT LSWYGSSYDGGSAVQSYNVEIWDTE DKVWKELATCRSTS FNVQ  
DLLPDREYKFRVRAVNVYGTSEPSQESELTA VGEKPEEPKDEVEVSDDDEKE  
PEVDYRTVTVNTEQKVSDVYDIEERLGS GKFQVFRLVEKKTGKIWAGKFFK  
AYSACEKDNIRQEISIMNCLHHPKLVQCVD AFEEKANIVMVLE  
35

**SEQ ID NO: 157**

**Figure 78- Partial cDNA Nucleotide Sequence Encoding the Amino Acid Sequence of SEQ ID NO: 7 (1098 nucleotides in total)**

40 5'-GACCTGAAGGCCACGCTGAACTCTGGCCCAGGCGCCCAGCAGAAGGAG  
ATCGGAGAGTTGAAGGCCCTGGTAGAGGGCATCAAGATGGAGCACCAGC  
TGGAGTTAGGTAACCTGCAGGCCAAGCACGACTTGGAGACGGCCATGCAT  
GGGAAGGAGAAGGAGGGCCTGCGGCAGAAGCTGCAAGAGGTCCAGGAGG  
AGCTGGCCGGGCTGCAGCAGCACTGGAGGGAGCAGCTGGAGGAGCAGGC  
45 CAGCCAGCATCGGCTGGAGCTCCAAGAAGCCCAGGACCAATGTCGCGACG  
CCCAGCTGCGCGCGCAGGAGCTAGAGGGACTGGATGTGGAGTACCGTGGC  
CAGGCTCAAGCCATCGAGTTCCTCAAAGAGCAGATCTCACTGGCTGAAAA  
GAAGATGCTAGATTACGAGATGCTGCAGAGGGCCGAAGCCCAGAGCAGG  
CAGGAGGCCGAGCGGCTGCGGGAAAAGCTTCTGGTGGCTGAGAATAGAC  
50 TCCAGGCCGCGGAGTCCCTGTGCTCAGCCAGCACAGCCATGTGATCGAA

TCCAGTGACCTTTCTGAGGAGACAATTCGGATGAAGGAGACTGTAGAGGG  
CCTGCAGGACAAGCTGAACAAGAGGGACAAAGAGGTGACAGCCTTGACA  
TCCCAGATGGACATGCTCAGGGCCCAAGTAAGTGCTCTAGAAAAACAAGTG  
CAAATCAGGAGAGAAGAAGATAGATTCTCTCCTGAAGGAGAAGAGGCGC  
5 CTAGAGGCAGAGCTGGAGGCTGTGTCTCGGAAGACCCACGATGCCTCCGG  
CCAGCTGGTCCACATCAGCCAGGAGTTGCTGCGGAAAGAGAGGAGTCTGA  
ACGAGCTGAGGGTGTGCTGTTAGAAGCCAATCGCCACTCCCCAGGGCCC  
GAGAGAGACCTGAGCCGTGAAGTACACAAAGCTGAATGGCGGATAAAGG  
AACAGAACTGAAGGATGACATCCGGGGCCTGCGTGAGAAGCTGACCGG  
10 GCTGGACAAGGAGAAGTCCCTATCAGAGCAGAGACGCTACTCCCTCATTG  
ACCCAGCTTCACCAACCCGAGCTGCTGAACTGCAGCATCAGTTGGTGAGC  
ACGGAAGAC-3'

**SEQ ID NO: 158**

15 **Figure 79- Partial cDNA Nucleotide Sequence Encoding the Amino Acid  
Sequence of SEQ ID NO: 10 (SEQ ID NO: 158) (591 nucleotides in total)**

5'-GAGAAAGGAATCAAACCTGCTGCAGGCACAGAAGCTGGTGCAGTATTTG  
CGGGAGTGTGAGGATGTAATGGACTGGATCAATGACAAGGAAGCAATTGT  
20 GACTTCTGAGGAGCTGGGCCAGGACCTGGAGCATGTAGAGGTGCTACAGA  
AGAAGTTTGAAGAGTTTCAGACTGATCTGGCTGCTCATGAAGAAAGAGTT  
AATGAAGTGAGCCAGTTTGCTGCCAACTCATCCAGGAGCAGCACCCGGA  
AGAGGAGCTGATCAAGACCAAGCAGGATGAGGTGAATGCAGCATGGCAG  
CGACTGAAAGGCCTGGCTCTTCAAAGGCAGGGCAAGCTGTTCCGGTGCTGC  
25 TGAGGTCCAGCGCTTTAACAGGGATGTAGATGAGACCATTGGTTGGATTA  
AGGAGAAAGAGCAGTTAATGGCCTCTGATGACTTCGGCAGAGACTTAGCA  
AGTGTTCAGCTCTGCTTCGAAAGCATGAGGGTCTGGAGAGAGATCTTGC  
TGCTCTAGAGGACAAGGTGAAAGCCCTGTGTGCTGAGGCTGACCGCCTGC  
AACAGTCACACCCTCTGAGTGCCAGCCAGATCCAGGGGAAGCGA-3'

30

**SEQ ID NO: 159**

**Figure 80- Partial cDNA Nucleotide Sequence Encoding the Amino Acid  
Sequence of SEQ ID NO: 19 (375 nucleotides in total)**

35 5'-GACGATGCCGCCGTGGAGACAGCTGAGGAAGCAAAGGAGCCTGCTGA  
AGCTGACATCACTGAGCTCTGCCGGGACATGTTCTCCAAAATGGCCACTT  
ACCTGACTGGGGAACTGACGGCCACCACTGAAGACTATAAGCTCCTGGAA  
AATATGAATAAACTCACCAGCTTGAAGTATCTTGAAATGAAAGATATTGC  
TATAAACATTAGTAGGAACTTAAAGGACTTAAACCAGAAATATGCTGGAC  
40 TGCAGCCTTATCTGGATCAGATCAATGTCAATTGAAGAGCAGGTAGCAGCT  
CTTGAGCAGGCAGCTTACAAGTTGGATGCATATTCAAAAAAAGTGAAGC  
CAAGTACAAGAAGCTGGAGAAGCGATGA-3'

NH2-MAGGEDRGDGEVSVVTVRVQYLEDTPFACANFPEPRRAPTCSLDGA  
5. LPLGAQIPAVHRLLGAPLKLEDCALQVSPSGYYLDTELSLEEQREMLEGFYEEI  
SKGRKPTLILRTQLSVRVNAILEKLYSSSGPELRRSLFSLKQIFQEDKDLVPEFV  
HSEGLSCLIRVGAAADHNYQSYILRALGQLMLFVDGMLGVVAHSDTIQWLYT  
LCASLSRLVVKTALKLLLVFVEYSENNAPLFIRAVNSVATTTGAPPWANLVSILE  
EKNAGADPELLVYTVTLINKTLAALPDQDSFYDVTDALEQQGMDTLVQRHLGT  
10 AGTDVDLRTQLVLYENALKLEDGDIEEAPGAGGRRERRKPSSEEGKRSRRSLE  
GGGCPARAPEPGPTGPASPVGPTSSTGPALLTGPASSPVGPPSGLQASVNLFPIT  
SVAPSADTSSERSIYKARFLENVAAAETEKQVALAQGRAETLAGAMPNEAGG  
HPDARQLWDSPETAPAARTPQSPAPCVLLRAQRSLAPEPKEPLIPASPKAEPIW  
ELPTRAPRLSIGDLDFSDLGEDEDQDMLNVESVEAGKDIPAPSPPLPLLSGVPP  
15 PPPLPPPPPIKGPFPPLPLAAPLPHSVDPSSALPTKRKTVKLFWRDVKLAGG  
HGVASASRFGPCATLWASLDPVSVDARLEHLFESRAKEVLPSKKAGEGRRTM  
TTVLDPKRTNAINIGLTTLPPVHVIAALLNFDEFVSKDGIEKLLTMMPTTEE  
RQKIEGAQLANPDIPGLPAENFLMTLASIGGLAARLQLWAFKLDYDSMEREIA  
EPLFDLKVGMEQLVQNATFRCILATLLAVGNFLNGSQSSGFELSYLEKVSVDVK  
20 DTVRRQSLHLHLCSLVLQTRPESSDLYSEIPALTRCAKVDFEQLTENLGQLERR  
SRAAEESLRSLAKHELAPALRARLTHFLDQCARRVAMLRIVHRRVCNRFHAF  
LYLGYPQAAREVRIMQFCHTLREFALEYRTCRRERVLQQQKQATYRERNKT  
RGRMITETEFSGVAGEAPSNPSVPVAVSSGPGRGDADSHASMKSLTSRLED  
TTHNRRSRGMVQSSSPIMPTVGPSTASPEEPPGSSLPSDTSDEIMDLLVQSVTKS  
25 SPRALAARERKRSRGNRKSRLRRTLKSGLGDDLVLQALGLSKGPGLEV  
-COOH

Figure 1- Full-length Amino Acid Sequence (FHOS) (SEQ ID NO: 27)

NH2-MAETSLLEAGASAASTAAALENLQVEASCSVCLEYLKEPVIIIECGHNFC  
KACITRWWEDLERDFPCPVCRKTSRYRSLRPNRQLGSMVEIAKQLQTVKRKI  
RDESLCSQHHEPLSLFCYEDQEAVCLICAISHTHRPHTVVPMDDATQEYKEKL  
QKCLEPLEQKLQEITCCKASEEKKPGELKRLVESRRQQILKEFEELHRRLDDEEQ  
5 QTLLSRLEEEEQDILQRLRENA AHLGDRRRDLAHLAAEVEGKCLQSGFEMLK  
DVKSTLEKCEKVKTMEVTSVSIELEKNFSNFPRQYFALRKILKQLIADVTL DPE  
TAHPNLVLSEDRKSVK FVETRLRDL PDTPQRFTFYPCVLATEGFTSGRHYWEV  
EVGDKTHWAVGVCRDSVSRKGELTPLPETGYWRVRLWNGDKYAATTT PFTPL  
HIKVKPKRVGIFLDYEAGTLSFYNVTD RSHIYTFTDTFTEKLWPLFYPGIRAGR  
10 KNAAPLTIRPPTDWE  
-COOH

Figure 2-Full-length Amino Acid Sequence (mRNF23) (SEQ ID NO: 28)

NH2-MLSRALLCLALAWAARVGADALEEEDNVLVLKKS NFEEALAAHKYLLV  
EFYAPWCGHCKALAPEYAKAAAKLKAEGSEIRLAKVDATEESDLAQQYGVR  
GYPTIKFFKNGDTASPKEYTAGREADDIVNWLKKRTGPAATTLSDTAAAESLV  
DSSEVTVIGFFKDVESDSAKQFLLAEEAIDDIPFGITSNSGVFSKYQLDKDGVV  
5 LFKKFDEGRNNFEGEITKEKLLDFIKHNQLPLVIEFTEQTAPKIFGGEIKTHILLF  
LPKSVSDYDGKLSSFKRAAEGFKGKILFIFIDSDHTDNQRILEFFGLKKEECPAV  
RLITLEEEMTKYKPESDELTAEKITEFCHRFLEGKIKPHLMSQEVPEWDKQPV  
KVLVGANFEEVAFDEKKNVFVEFYAPWCGHCKQLAPIWDKLGETYKDHENIII  
AKMDSTANEVEAVKVHSFPTLKFFPASADRTVIDYNGERTLDGFKKFLES GGQ  
10 DGAGDDEDLDLEEALPDMEEDDDQKAVKDEL  
-COOH

Figure 3- Full-length Amino Acid Sequence (mERp59) (SEQ ID NO: 29)

NH2-MGKKHKKHKSDRHFYEEYVEKPLKLVLKVGGSEVTELSTGSSGHDSSL  
FEDRSDHDKHKDRKRKKRKKGEKQAPGEEKGRKRRRVKEDKKKRDRDRAE  
NEVDRDLQCHVPIRLDLPPEKPLTSSLAKQEEVEQTPLQEALNQLMRQLQSTM  
KEKIKNNDYQSIEELKDNFKLMCTNAMIYNKPETIYYKAAKKLLHSGMKILS  
5 QERIQSLKQSIDFMSDLQKTRKQKERTDACQSGEDSGCWQREREDSGDAETQ  
AFRSPAKDNKRKDKDVLEDKWRSSNSEREHEQIERVVQESGGKLTRRLANSQ  
CEFERRKPDGTTTLGLLHPVDPIVGEPGYCPVRLGMTTGRLQSGVNTLQGFKE  
DKRNRVTPVLYLNYGPYSSYAPHYDSTFANISKDDSDLIYSTYGEDSDLPNNFS  
ISEFLATCQDYPYVMADSLLDVLTGKGHSRSLQDLDMSSPEDEGQTRALDTA  
10 KEAEITQIEPTGRLESSSQDRLTALQAVTTFGAPAEVFDSEEAEVFQRKLDETTR  
LLRELQEAQNERLSTRPPPNMICLLGPSYREMYLAEQVTNNLKELTQQVTPGD  
VVSIHGVRKAMGISVPSPIVGNSFVDLTGECEEPKETSTAECGPDAS  
-COOH

15 Figure 4- Full-length Amino Acid Sequence (mBRD7(621)) (SEQ ID NO: 30)

NH2-METPKETAVESSGPKVLETAEEIQHRRAEVLNQYQRFKDRVAERGQKLE  
 ESYHYQVFRRDADDLEKWIMEKLEIAKDKTYEPTNIQGKYQKHESFVSEVQA  
 KSRVLPELEEIREARFAEDHFAHEATKTHLKQLRLLWDLLELTQEKSDVLLR  
 ALKFYQYSQECEDILEWVKEKEAIVTLVELGDDWERTEVLHKKFEEFQEELTA  
 5 RKGKVDRVNQYANECAQEKHPKLPEIKAKQDEVNAAWDRLWSLALKRRESL  
 SNAADLQRFKRVDNEAIQWMEEKEPQLTSEDYGKDLVSSEALFHNHKLRLRN  
 LAVMDDKVKECAKADKLMISHSADAPQIQQMKLDLVSNERIRALATNRY  
 AKLKASYGYHRFLSDYDELSGWMKEKTALINADELPTDVASGEALLARHQQ  
 HKHEIDSYDDRFQSADATGQELLDGNHEASEEIREKMTILANDWAALLELWD  
 10 KCQHQRQCLDFHLFYRDSEQVDSWMSRQEAFLNEDLGNSVGSVEALLQK  
 HDDFEEAFTAQEEKIITLDETATKLIDNDHYDSENIAAIRDGLLARRDALRERA  
 ATRRKLVDSQLQQLYQDSDDLKTWINKKKKLADDDDYKDVQNLKSRVQK  
 QQDFEELAVNEIMLNNLEKTGQEMIEDGHYASEAVAARLSEVANLWKELLEA  
 TAQKGTQLYEANQLLOFENNAEDLKRWLEEVWQVTSSEDYGKGLADVQNL  
 15 LRKHGLLESDVTARQNQVDTLTDMAAHFEEIGHPSGDIRARQESLLSRFEAL  
 KEPLAIRKKKLIDLLKLQQICRDEDEEAWIQETEPSAASTHLGKDLVAAKNLL  
 NRHEVILADIASHEPRIQVITERGNKMVEEGHFAAEDIASRVESLNKNMESLH  
 ARAIRRENDLKANVQLQQYLADLHEAEAWIKEKEPIVDNKNYGADDEAAGA  
 LLKKHEAFLVDLNAFENSIKALRDQAEVCQQQQAAPVDEAGREARVIALYDF  
 20 EARSRREVSMKKNDVLTLLSSINKDWWKVEADDHQGFVPAVYVRKLAPDEL  
 PGFPQHRQEPPVNIPLQQLQQVETLYHSLLDRAEERRRRLQRYNEFLLAYEAG  
 DMLEWIEKKTENTGVELDDVWELQKKFDEFQRDLKSNEPRLKDINKVADE  
 LLFEELLTPEGAHIRQELNTRWNSLKRLADEQYQLLSSAHAVEMFHFREADDV  
 KEQIDKKCRALNAADPGSDLLSVQALQRQHEVFERDIPLGEKVTTLGETAER  
 25 LCESHPDATEDLQKQRTTELNEAWDTLQGLTSDRKESLNEAHKFFLFLSKASDL  
 ENWIKTIGGVISSPELAEDLTGTEILLERHQEHDDIKREDPTFQALEDGTELI  
 DSGHRNRREIDNTLQNINSKRDNLEKSWENRKKMLDQCLELQLFRGKCDQV  
 ESWMVARENSLRSDDRDHLNSLQALMKKRDDLKAITAQEGKISDLENVATR  
 LIDNDHYAKEEIAARLQRVLDLDRWKALKEQLLTELGLGDIYADLKQFYRDLED  
 30 LEEWINEMPLIACDESYKDPTNIQRKYLKHQAFENEVNGRAEQVDGVINLGN  
 SLIERRVCDGDEENMQEQLDKLENWDYLLERTTDKGQKLNEASRQQRFT  
 SIRDSEFWLSEAEGLLAMKDQARDLTSAGNLLKKHQLLEAEMLAREDPKDL  
 NDLAQELISSGTFNIDQIEEKMNGVNERFENVQSLAAAHHEKLEKTYALFQFF  
 QDLDDDEAWIEEKLLRVSSQDYGRDLQSVQNLLKKHKLREGELVAHEPAVQN  
 35 VLDTAESLRDKAAVGKEEIQERLAQFVQHWELKELAKTRGVNLEESLEYLQ  
 FMENAEAEAEAWLGEKCALVSRGDSGDTLAATQSLLKKHEALENDFAVHKNRV  
 QDVCAQGEDILNKEETQNKDKISTKIQVLNEKTASLAKALAAWKSQLDLVHA  
 FQQFNWKADVSVESWIGEKEASLTKSNGADLTAFLTLLAKHDTLDASLQSFQ  
 QERLSEIAELKDQLVAGEHSQAKAIEEQHAALLRHWEQLLEASRVHRQKLE  
 40 KQLPLQKAEELFMEFAHKASAFNNWCENAEEDLSEPVHCVSLNEIRQLQKEH  
 EAFLASLAGAQEDFNYLELDKQIKALNPSSPYTWLTVDLVGRINHLPDII  
 KEREQELQKEEARQIKNFEMCQEFEQNASAFQWQIETRAYFLDGSLLKETGT  
 LESQLEANKRKQKEIQAMKRHLTKIEDLGDSMEEALILDIKYSTIGLAQQWDQ  
 LHQLGMRMQHNLEQQIQAKDTIGVSEETLKEFSTTYKHFENLTGRLTHKEF  
 45 RSCLRGLNYYLPMVEEGEPEPKFEKFLNAVDPPGRKGYVSLEDYTSFLIDKESE  
 NIKTSDDIESAFQALAEKGAYITKEDMKQALTPEQVSFCTIHMQQYMDPRGRS  
 QPAGYDYVGFTNSFFGN -COOH

Figure 5- Full-length Amino Acid Sequence  
 (mSPNA1) (SEQ ID NO: 31)

NH2-MASGADSKGDDLSTAILKQKNRPNRLIVDEAINEDNSVVSLSQPKMDEL  
QLFRGDTVLLKGKKRREAVCIVLSDDTCSDEKIRMNRVVRNNLRVRLGDVISI  
QPCPDVKYKGKRIHVLPIDDTVEGITGNLFEVYLKPYFLEAYRPIRKGDIFLVRG  
GMRAVEFKVVETDPSPYCIVAPDTVHCEGEPIKREDEEESLNEVGYYDDVGGC  
5 RKQLAQIKEMVELPLRHPALFKAIGVKPPRGILLYGPPGTGKTLIARAVANETG  
AFFFLINGPEIMSKLAGESESNLRKAFEEAEKNAPAIIFIDELDAIAPKREKTHG  
EVERRIVSQLLTLMMDGLKQRAHVIVMAATNRPN SIDPALRRFGRFDREVDIGIP  
DATGRLEILQIHTKNMKLADDVDLEQVANETHGHV GADLAALCSEAALQAIR  
KKMDLIDLEDETIDAEVMNSLAVTMDDFRWALSQSNPSALRETVVEVPQVTW  
10 EDIGGLEDVKRELQELVQYPVEHPDKFLKFGMTPSKGVLFYGPFGCGKTLLA  
KAIANECQANFISIKGPELLTMWFGGESEANVREIFDKARQAAPCVLFFDELDSI  
AKARGGNIGDGGGAADRVINQILTEMDGMSTKKNVFIIGATNRPDIIDPAILRP  
GRLDQLIYIPLPDEKSRVAILKANLRKSPVAKDVDLEFLAKMTNGFSGADLTEI  
CQRACKLAIRESIESEIRRERERQTNPSAMEVEEDDPVPEIRRDHFEEAMRFAR  
15 RSVSDNDIRKYEMFAQTLQQRGFGSFRFSPGNQGGAGPSQGGSGGGTGGSVY  
TEDNDDDLYG  
-COOH

Figure 6- Full-length Amino Acid Sequence (mVCP) (SEQ ID NO: 32)

NH2-MAGWIIQAQQLOGDALRQMQVLYGQHFPPIEVRHYLAQWIESQPWDAID  
LDNPQDRGQATQLLEGLVQELQKKAEHQVGEDGFLLKIKLGHYATQLQNTYD  
RCPMELVRCIRHILYNEQRLVREANNCSSPAGVLVDAMSQKHLQINQRFEELR  
LITQDTENELKKLQQTQEYFIIQYQESLRIQAQFAQLGQLNPQERMSRETALQQ  
5 KQVSLETWLQREAQTLQQYRVELAEKHQKTLQLLRKQQTIILDDELIQWKRR  
QQLAGNGGPPEGSLDVLQSWCEKLAELIWNRRQQIRRAEHLCCQLPIGPVEE  
MLAEVNAITITDIISALVTSTFIIKQPPQVLKTQTKFAATVRLLVGGKLNVMHN  
PPQVKATHISEQQAKSLLKNENTRNECSGEILNNCCVMEYHQATGTLSAHFRN  
MSLKRIKRADRRGAESVTEEKFTVLFESQFSVGSNELVFQVKTLPLPVVIVH  
10 GSQDHNATATVLWDNAFAEPGRVPFAVPDKVLWPQLCEALNMKFKAQVQSN  
RGLTKENLVFLAQKLFNISSNHLEDYNSMSVSWSQFNRENLPGWNYTFWQW  
FDGVMEVLKKHHKPHWNDGAILGFVNKQQAHDLLINKPDGTFLFRSDSEIG  
GITIAWKFDSPDRNLWNLKPFTTRDFSIRSLADRLGDLNYLIYVFPDRPKDEVF  
15 QPHYNMYPPNPDPVLDQDGEFDLDESMDVARHVEELLRRPMDSLDARLSPPA  
GLFTSARSSLS  
-COOH

Figure 7- Full-length Amino Acid Sequence (mSTAT5A) (SEQ ID NO: 33)

20

NH2-AIVERRANLLRAEIEELRATLEQTERSRIKIAEQELLDASERVQLLHTQNTS  
LINTKKKLENDVSQLQSEVEEVIQESRNAEEKAKKAITDAAMMAEELKKEQD  
TSAHLERMKKNME  
-COOH

5

Figure 8- Partial Amino Acid Sequence (mTAKEDA009) (SEQ ID NO: 10)

NH2-MEDVTLHIVERPYSGFPDASSEGPPTQGEARATEEPSGTGSDELKSDQ  
VNGVLVLSLLDKIIGAVDQIQLTQAQLEERQAEMEGAVQSIQGELSKLGKAHA  
TTSNTVSKLLEKVRKVSNNVKTVRGSLERQAGQIKKLEVNEAELLRRRNFKV  
MIYQDEVKLPKLSVSKSLKESEALPEKEGDELGEGERPEDDTAAIELSSDEAV  
5 EVEEVIEESRAERIKRSGLRVDDFKKAFSKEKMEKTKVRTRENLEKTRLKTK  
ENLEKTRHTLEKRMNKLGTRLVPVERREKLKTSRDKLRKSFTPDHVYARSK  
TAVYKVPPTFFHVKKIREGEVEVLKATEMVEVGPEDDEVGAERGEATDLLRG  
SSPDVHTLLEITEESDAVLVDKSDSD  
-COOH

10

Figure 9- Full-length Amino Acid Sequence (mPTRF) (SEQ ID NO: 34)

NH2-MLLSPKFSLSTIHVRLTAKGLRNLRLPPGLRKNTVIFHTVEKGRQKNPRS  
LCIQTTQAPDVLSSERTLELAQYKTKCESQSGFILHLRQLLSRGNTKFEALTVVI  
QHLLSEREEALKQHKTLSQELVSLRGELVAASSACEKLEKARTDLQTAYQEFV  
QKLNQQHQTDRTLENRLKDLYTAECEKLQSIYIEEAKEYKTQLQEQFDNLN  
5 AAHETTKLEIEASHSEKVELLKKTYETSLSEIKKSHEMEKKSLDLLNEKQESL  
EKQINDLKSENDALNERLKSEEKQLSREKANSKNPQVMYLEQELESKAVL  
EIKNEKLHQQDMKLMKMEKLVDNNTALVDKLRFRQQENEELKARMDKHMA  
ISRQLSTEQAALQESLEKESKVNKRLSMENEELLWKLHNGDLCSPKRSPTSSAI  
PFQSPRNSGSFSSPSISPR  
10 -COOH

Figure 10- Full-length Amino Acid Sequence (mAK031693) (SEQ ID NO: 35)

NH2-MSGVLVGQRDEPAGHRLSQEEILGSTKVVSQGLEALHSEHQAVLQSLSH  
TIECLQQGGHEEGLVHEKARQLRRSMENIELGLSEAQVMLALASHLSTVESEK  
QKLRAQVRRLCQENQWLRDEL AGTQQRLQRSEQAVAQLEEEKKHLEFLRQL  
RQYDEDGHGMEEKEGEATKDSLDDLFPNEEEEDSGNDLSRGQGAAAAQQGG  
5 YEIPARLRTLHNLVIQYAAQGRYE VAVPLCKQALEDLERTSGRGHPDVATMLNI  
LALVYRDQNKYKEAAHLLNDALSIRESTLGRDHPAVAATLNNLAVLYGKR GK  
YKEAEPLCQRALEIREKVLGTDHPDVAKQLNNLALLCQNQGKYE AVERY YQ  
RALAIYESQLGPDNPNVARTKNNLASCYLKQGKYSEAEALYKEILTCAHVQEF  
GSVDDDDHKPIWMHAEEREEMSRSRPRDSSAPYAEYGGWYKACRVSSPTVNT  
10 TLKNLGALYRRQGKLEAAETLEECALRSRKQGTDPISQTKVAELLGEGDGRK  
AIQEGPGDSVKFEGGEDASVAVEWSGDGSGTLQRSGSLGKIRDVLRSSSELLV  
RKLQGT EPRPSSSSMKRAASLNYLNQPNAAPLQVSRGLSASTVDLSSSS  
-COOH

15 Figure 11- Full-length Amino Acid Sequence (m1200014P03Rik) (SEQ ID NO: 36)

NH2-MVPGVPLPPEIQLAQRLAGNEQVTRDRALRKLRKYIEARSQRATGGFTP  
DELLK VWKGLFYCMWMQDKPLQQEELGRTIAQLVHAFHTTEAQHQFLKAF  
WQTMIREWVGIDRLRLDKFYMLMRMVLSESLKAVKARGWDERQIEQLLELL  
TTEILNPDSQAPSGVKSHFLEIFLEELAKVGAAELTADQNLQFIDPFCQIAARTK  
5 DSQVLHKIIQSIFQTIVEQAPLAIEDIMNELDTQSgegeASDGDDGEASDGDDG  
EASDDDDGEASDGGDGDVADSDDSDGADDDGDVSDGDGGDNDEGDSNKS  
SEGEQDLQDTPPKKLPAHTAHRAAGPEADKEQAWDDEENAGPVLQFDYEALA  
NRLFKLASRQSTPSQNRKRLYKVIQKLRELAGGTFPEDDVPEKAYKKMLEGR  
RERKKKKKRLPKPQPQNKEAGSEAESSADPGPGRKRKRNRKTDEKAGQGG  
10 PPGKRRKPGARAKGAGAQPPKKRIQSSQSAE  
-COOH

Figure 12- Full-length Amino Acid Sequence (mNNP1) (SEQ ID NO: 37)

NH2-RRVKDDAAAHIA<sup>5</sup>SLKASHEREIEKLLCQNAIENSSSKVAELNRKIATQEV  
LLKHFQGGQVNELQGKQESLAVSQVREEILQKQITKLEELKEAKENHTPEMK  
HFMGLERKIKQMEMRHRQREQELQQIIQQTRQVVETEQNKEVEKWKRLAQL  
KNRELDKFRTELD<sup>5</sup>SILDVLR<sup>5</sup>ELHRQGVVVPMALAGEENTA<sup>5</sup>EF  
-COOH

Figure 13- Partial Amino Acid Sequence (mLOC213473(195)) (SEQ ID NO: 15)

NH2-MDGASAKQDGLWESKSSSDVSSCPEASLETVGSLARLPDQQDTAQDAS  
 VEVNRRGFKEEGSPDRSSQVAICQNGQIPDLQLSLDPTTSPVGPDASTGSTASSL  
 PLEKEEQVRLQARKRLEEQLMQYRVKRRHRERSSQPATKMKLFSTLDPPEMLN  
 PENLPRASTVAVTKEYSFLRTSVPRGPKVGSGLLAHSKEKKNSKSSKIRSLAD  
 5 YRTEDPSDSGGLGSTADAVGSSSLKQSRSSTSVVSEVSPSSETDNRVESASMTGD  
 SVSEADGNESDSSSHSSLSARGACGVLGNVGMPGTAYMVDGQEISAEALGQF  
 PSIKDVLQAAAAQHQQDQDQNEANGEVRSRRDSICSSVSMESSLAEPQDELLQIL  
 KDKRRLEGQVEALSLEASQALQEKAELQAQLAALSTRLQAQVEHSHSSQQK  
 QDSLSSEVDTLKQSCWDLGRAMTDLQSMLEAKNASLASSNNDLQVAEEQYQ  
 10 RLMAKVEDMQRNILSKDNTVHDLRQQMTALQSQLQQVQLERTTLTSLKLQAS  
 QAEITSLQHARQWYQQQLTLAQEARVRLQGETAHIQVGQMTQAGLLEHLKL  
 ENVSLSHQLTETQHRSIKEKERIAVQLQSIEADMLDQEAAFVQIREAKTMVEE  
 DLQRRLEEFEGEREQLQKVADAAASLEQQLEQVKLTLFQRDQQLAALQQEHL  
 DVIKQLTSTQEALQAKGQSLDDLHTRYDELQARLEELQREADSREDAIHFLQN  
 15 EKIVLEVALQSAKSDKEELDRGARRLEEDTEETSGLLEQLRQDLAVKSNQVEH  
 LQKETATLRKQMVKVKEQFVLQKVMVEAYRRDATSKDQLINELKATKKRLD  
 SEMKELRQELIKLQGEKKTVEVEHSRLQKDMSLVHQQMAELEGHLQSVQKE  
 RDEMEIHLQSLKFDKEQMIALTEANETLKKQIEELQQEAKKAITEQKQKMKR  
 LGSDLTSAQKEMKTKHKAYENAVSILSRRLQEALASKEATDAELNQLRAQST  
 20 GGSSDPVLHEKIRALEVELQNVGQSKILLEKELQEVITMTSQELEESREKVLEL  
 EDELQESRGFRRKIKRLEESNKKLALALEHERGKLTGLGQSNAALREHNSILET  
 ALAKREADLVQLNLQVQAVLQRKEEEDRQMKQLVQALQVSLEKEKMEVNSL  
 KEQMAAARIEAGHNRRHFKAATLELSEVKKELQAKEHLVQTLQAEVDELQIQ  
 DGKHSQEIAQFQTELAEARTQLQLLQKKLDEQMSQQPTGSQEMEDLKWELD  
 25 QKEREIQSLKQQDLTEQQGKKELEGTQQTLQTIKSELEMVQEDLSETQKDKF  
 MLQAKVSELKNNMKTLQNNQQLKLDLRRGAACKKEPKGESNSSSPATPIKI  
 PDCPVPASLLEELLRPPPAVSKEPLKNNCLQQLKQEMDSLQRQMEEHTITV  
 HESLSSWAQVEAAPAEHAHPRGDTKLHNQNSVPRDGLGQ  
 -COOH  
 30

Figure 14- Full-length Amino Acid Sequence (mGOLGA3) (SEQ ID NO: 38)

NH2-MGRRFLRGILTPLRSVLQAQHRMLGSEQDPPAKRPRNNLMAPPRIGTH  
NGTFHCDEALACALLRLLPEYANAEIVRTRDPEKLASCDIVVDVGGEYNPQSH  
RYDHHQRTFTETMSSLCPGKPWQTKLSSAGLVYLFHGRKLLAQLLGTSEEDS  
VVDTIYDKMYENFVEEVDAVDNGISQWAEGEPRYAMTTTLSARVARLNPTWN  
5 QPNQDTEAGFRRAMDVLVQEEFLQRLNFYQHSWLPARALVEEALAQRFKVDSS  
GEIVELAKGGCPWKEHLYHLESELSPKVAITFVIYTDQAGQWRVQCVPEPHS  
FQSRLPLPEPWRGLRDKALDQVSGIPGCIFVHASGFIGGHHTREGALNMARAT  
LAQRPAVPLANAVVQ  
-COOH

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Figure 15- Full-length Amino Acid Sequence (mMYG1-pending) (SEQ ID NO: 39)

NH<sub>2</sub>-MSSQSMKLPPSNSALPNQALGSIAGLGTQNLNSVRQNGNPNMFGVGNT  
AAQPRGMQQPPAQLSSSQPNLRAQVPPPLSPQVPVSLLKYAPNNGGLNPLF  
GPQQVAMLNQLSQLNQLSQISQLQRLLAQQQRAQSQRSAPSANRQQQDQQG  
RPLSVQQQMMQQSRQLDPSLLVKQQTPPSQQPLHQPAMKSFLDNVMPHTTPE  
5 LQKGPSPVNAFSNFPIGLNSNLNVNMDMNSIKEPQSRLRKWTTVDSMSVNTS  
LDQNSSKHGAISSGFRLEESPFVPHYDFMNSSTSPASPPGSIGDGWPRAKSPNGS  
SSVNWPPEFRPGEPWKGYPNIDPETDPYVTPGSVINSLSINTVREVDHLRDRNS  
GSSSSLNTTLPSTSAWSSIRASNYNVPLSSTAQSTSARNSDSKLTWSPGSVTNTS  
LAHELWKVPLPPKNITAPSRPPPGLTGQKPPLSTWDNSPLRVGGGWGNSDARY  
10 TPGSSWGESSSGRITNWLVLKNLTPQIDGSTLRITLCMQHGPLITFHLNLPHGNA  
LVRYSSKEEVVKAQKSLHMCVLGNTTILAEFASEEEISRFFAQSQLTPSPGWQ  
SLGSSQSRLGSLDCSHSFSSRTDVNHWNAGLSGANCGDLHGTSWGTTPHYS  
TSLWGPPSSDPRGISSPSPINAFSLVDHLGGGGESM  
-COOH

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Figure 16- Partial Amino Acid Sequence (mAK044679(668)) (SEQ ID NO: 40)

NH<sub>2</sub>-MSVAGGEIRGDTGGEDTAAPGRFSFSPEPTLEDIRRLHAEFAAERDWEQF  
HQPRNLLLALVGEVGEAELFQWKTDGEPGPQGWSRERAALQEELSDVLIY  
LVALAARCRVDLPLAVLSKMDINRRRYPAHLARSSSRKYTELPHGAISEDQAV  
GPADIPCDSTGQTST  
5 -COOH

Figure 17- Full-length Amino Acid Sequence (RS21C6) (SEQ ID NO: 41)

NH<sub>2</sub>-MPHKIGFVVVSSSGHEDGFSARELMIHAPT VSGWRSRFCQFPQEIVLQM  
VERCRIRKLQLLAHQYMISSKIEFYISESLPEYFAPYQAERFRRLGYVSLCDNE  
KTGCKARELKSVYVDAVGQFLKLIFHQNHVNKYNIYNQVALVAINIIGDPADF  
SDESNTASREKLIDHYLGHNSEDPALEGTYARKSDYISPLDDLAFDMYQDPEV  
5 AQIIRKLDERKREAVQKERYDYAKKLKQAIADLQKVGERLG RYEVEKRCAVE  
KEDYDLAKEKKQMEQYRAEVYEQLELHSLDDAELMRRPFDLPLQPLARSG  
SPCHQKPMPSLPQLEERG TENQFAEPFLQEKPSYSLTISPQHSAVDPLL PATDP  
HPKINAESLPYDERPLPAIRKH YGEAVVEPEMSNADISDARRGGMLGEPEPLTE  
KALREASSAIDVLGETLVAEAYCKTWSYREDALLALS KKL MEMPVGTPKEDL  
10 KNTLRASVFLVRRRAIKDIVTSVFQASLKLKMIITQYIPKH KLSKLETAHCVER  
TIPVLLTRTGDSSARLRVTAANFIQEMALFKEVKSLQIIPSYLVQPLKANSSVHL  
AMSQMGLLARLLKDLGTGSSGFTIDNVMKFVS SALEHRVYEVRETAVRIILD  
MYRQHQASILEYLPDDSNTRRNILYKTIFEGFAKIDGRATDAEMRARRKAAT  
EEAEKQKKEEIKALQGQLAALKEIQAEVQE KESDAVKPKNQDIQGGKAAPAE  
15 ALGIPDEHYLDNLCIFCGERSESFTEEGLDLHYWKHCLMLTRCDHCKQVVEIS  
SLTEHLLTECDKKDGF GKCYRCSEAVFKEELPRHIKHKDCNPAKPEKLANRCP  
LCHENFSPGEEAWKAHLMGPAGCTMNL RKTHILQKAPALQPGKSSAVAASGP  
LGSKAGSKIPTPKGGLSKSSSRTYAKR  
-COOH  
20

Figure 18- Full-length Amino Acid Sequence (KIAA0562) (SEQ ID NO: 42)

NH<sub>2</sub>-MTAAENVCYTLINVPMDSEPPSEISLKN DLEKGDVKS KTEALKKVIIMIL  
NGEKLPGLLMTIIRFVLPLQDHTIKKLLLVFWEIVPKTTPDGRLLHEMILVCDA  
YRKDLQHPNEFIRGSTLRFLCKLKEAELEPLMPAIRACLEHRHSYVRRNAVL  
AIYTIYRNFEHLIPDAPELIHDFLVNEKDASCKRNAFMMLIHADQDRALDYLS  
5 TCIDQVQTFGDILQLVIVELIYKVCHANPSEARFIRCIYNLLQSSSPAVKYEAA  
GTLVTLSSAPTAIAAAQCYIDLIIKESDNNVKLIVLDRLIELKEHPAHERVLQD  
LVMDILRVLSTPDLEVRKKTLLQALDLVSSRNVEELVIVLKKEVIKTNNVSEHE  
DTDKYRQLLVRTLHSCSVRFPDMAANVIPVLMEFLSDNNEAAAADVLEFVRE  
AIQRFDNLRMLIVEKMLEVFAIKSVKIYRGALWILGEYCSTKEDIQSVMTAIR  
10 RSLGEIPIVESEIKKEAGELKPEEEITVGPVQKLVTEMGTATQSA LSSSRPTKK  
EEDRPPLRGFLLDGDFVAASLATTLTALRYVALVQEKKKQNSFVAEAMLL  
MATILHLGKSSLPKKPITDDDVDRISLCLKVLSECSPLMNDIFNKECRQSLSHM  
LSAKLEEEKLSQKKESEKRNVTVPDDPISFMQLTAKNEMNCKEDQFQLSLL  
AAMGNTQRKEAADPLASKLNKVTQLTGFSDPVYAEAYVHVNQYDIVLDVLV  
15 VNQTSDDLQNCTLELATLGDLKLVEKPSPLTLAPHDFANIKANVKVASTENGII  
FGNIVYDVSGAASDRNCVVLSDIHIDIMDYIQPATCTDAEFRQMWA EFEWEN  
KVTVNTNMVDLNDYLQHILKSTNMKCLTPEKALSGYCGFMAANLYARSIFGE  
DALANVSIEKPIHQGPDAAVTGHIRIRAKSQGMALSLGDKINLSQKKTSI  
-COOH

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Figure 19-Full-length Amino Acid Sequence (COPB) (SEQ ID NO: 43)

NH<sub>2</sub>-MGDSEMAVFGAAAPYLKSEKERLEAQTRPFDLKKDVFVPDDKQEFVK  
 AKIVSREGGKVTAETEGKTVTVKEDQVMQQNPPKFDKIEDMAMLTFLHEPA  
 VLYNLKDRYGSWMIYTYSGLFVTVNPKWLPVYTPEVVAAYRGKKRSEAP  
 PHIFSISDNAYQYMLTDRENQSILITGESGAGKTVNTKRVIQYFAVIAAIGDRSK  
 5 KDQSPGKGTLEDQIIQANPALEAFGNAKTVRNDNSSRFGKFIRIHFGATGKLAS  
 ADIETYLLEKSRVIFQLKAERDYHIFYQILSNKKPELLDMLLITNNPYDYAFISQ  
 GETTVASIDDAEELMATDNAFDVLGFTSEEKNSMYKLTGAIMHFGNMKFKLK  
 QREEQAEPDGTEEADKSAYLMGLNSADLLKGLCHPRVKVGNEYVTKGQNVQ  
 QVIYATGALAKAVYERMFNWMVTRINATLETQPRQYFIGVLDIAGFEIFDFN  
 10 SFEQLCINFTNEKLQQFFNHMHMFVLEQEEYKKEGIEWTFIDFGMDLQACIDLIE  
 KPMGIMSILEEECMFPKATDMTFKAKLFDNHLGKSANFQKPRNIKGKPEAHFS  
 LIHYAGIVDYNIIIGWLQKNKDPLNETVVGLYQKSSLKLLSTLFANYAGADAPIE  
 KGKGKAKKGSSFQTVSALHRENLNKLMTNLRSTHPPHVRCIIPNETKSPGVM  
 DNPLVMHQLRCNGVLEGIRICRKGFPNRILYGDFRQRYRILNPAAIPEGQFIDSR  
 15 KGAEKLLSSLDIDHNQYKFGHTKVFFKAGLLGLEEMRDERLSRIITRIQAQSR  
 GVLARMEYKKLLERRDSSLVIQWNIRAFMGVKNWPWMKLYFKIKPLLSAE  
 REKEMASMKEEFTRLKEALEKSEARRKEEEKMVSLLEKNDLQLQVQAEQ  
 DNLADAEEERCDQLIKNKIQLEAKVKEMNERLEDEEEMNAELTAKKRKLEDEC  
 SELKRDIDDLTLAKVEKEKHATENKVKNLTEEMAGLDEIIAKLTKEKKALQ  
 20 EAHQQALDDLQAEEDKVNTLTAKVKLEQQVDDLEGSLEQEKKVRMDLER  
 AKRKLEGDCLKLTQESIMDLENDKQQLDERLKKKDFELNALNARIEDEQALGS  
 QLQKKLKLQARIEELEELESERTARAKVEKLRSCLSRELEEISERLEEAGGA  
 TSVQIEMNKKKREAEFQKMRRDLEEATLQHEATAAALRKKHADSVAELGEQID  
 NLQRVKQKLEKEKSEFKLELDDVTSNMEQIIKAKANLEKMCRTLEDQMNEH  
 25 RSKAEETQRSVNDLTSQRAKLQTENGELSRQLDEKEALISQLTRGKLTYYTQQL  
 EDLKRQLEEEVKAKNALAHALQSARHDCDLLREQYEEETEAKAELQRVLSK  
 ANSEVAQWRTKYETDAIQRTEELEEAKKKLAQRLQEAEEAVEAVNAKCSSLE  
 KTKHRLQNEIEDLMVDVERSNAAAAALDKKQRNFDKILAEWKQKYEESQSE  
 LESSQKEARSLSTELFKLKNAYEESLEHLETFKRENKNLQEEISDLTEQLGSSG  
 30 KTIHELEKVRKQLEAEKMELQSALEAEASLEHEEGKILRAQLEFNQIKAEIER  
 KLAEKDEEMEQAKRNHLRVVDSLQTSLSDAETRSRNEALRVKKKMEGDLNEM  
 EIQLSHANRMAAEAQKQVKSLSLQSLKDTQIQLDDAVRANDDLKENIAIVERR  
 NNLLQAELEELRAVVEQTERRKLAELIETSERVQLLHSQNTSLINQKKKM  
 DADLSQLQTEVEEAVQECRNAEEKAKKAITDAAMMAEELKKEQDTSALER  
 35 MKKNMEQTIKDLQHRLEAEQIALKGGKKQLQKLEARVRELENELEAEQKR  
 NAESVKGMRSERRIKELTYQTEEDRKNLLRLQDLVDKLQLKVAYKRQAE  
 AEEQANTNLSKFRKVQHELDEAEERADIAESQVNKLRAKSRDIGTKGLNEE  
 -COOH

40 Figure 20- Full-length Amino Acid Sequence (MYH7) (SEQ ID NO: 44)

NH<sub>2</sub>-KVEELNSEIEKLSAFAKAREALQKAQTQEFQGSSEDYETALSGKEALSA  
 ALRSQNLTSTENHRLRRSIKKITQELSDLQQERERLEKDLEEAHREKSKGDC  
 TIRDLRNEVEKLRNEVNEREKAMENRYKSLSESNNKKLHNQEQVIKHLTESTN  
 QKDVLLQKFNEKDLEVIQQNCYLMAAEDLELRSEGLITEKCSSQQPPGSKTIF  
 5 SKEKKQSSDYELIQVLKKEQDIYTHLVKSLQESDSINNLAELNKIFALRKQL  
 EQDVLSYQNLRTLEEQISEIRRREESFSLYSDQTFYLSICLEENNRFQVEHFS  
 QEELKKKVSDLIQLVKELYTDNQHLKKTIFDLSCMGFQGNFGPDRLASTEQTE  
 LLASKEDEDTIKIGEDDEINFLSDQHLQQSNEIMKDLSKGGCKNGYLRHTESKI  
 SDCDGAHAPGCLEEGAFINLLAPLFNEKATLLLESRPDLLKVVRELLGQLFLT  
 10 EQEVSGEHLDGKTEKTPKQKGELVHFVQTNFSKPHDELKLSCEAQLVKAGE  
 VPKVGLKDASVQTVATEGDLLRFKHEATREAWEEKPINTALSAEHRPENLHG  
 VPGWQAALLSLPGITNREAKKSRLPILIKPSRSLGNMYRLPATQEVVTQLQSQI  
 LELQGELKEFKTCNKQLHQKLILAEAVMEGRPTPDKTLLNAQPPVGAAYQDS  
 PGEQKGIKTTSSVWRDKEMSDSQRSYEIDSEICPPDDLASLPSCKENPEDVLS  
 15 PTSVATYLSSKSQPSAKVSVMGTDQSESINTSNETEYLKQKIHDLTELEGYQN  
 FIFQLQKHSQCSEAIITVLCGTEGAQDGLSKPKNGSDGEEMTFSSLHQVRYVK  
 HVKILGPLAPEMIDSRVLENLKQQLLEEYKLQKEQNLNMQLFSEIHNLQNKF  
 RDLSPPRYDSLVSQARELSLQRQQIKDGHGICVISRQHMNTMIKAFEELLQA  
 SDVDYCVAEGFQEQLNQCAELLEKLEKLFLNGKSVGVEMNTQNELMERIEED  
 20 NLTYQHLLPESPEPSASHALSDYETSEKSFFSRDQKQDNETEKTSMVNVSFSQ  
 DLLMEHIQEIRTLRKRLEESIKTNEKLRKQLERQGSEFVQGSTSIFASGSELHSS  
 LTSEIHFLRKQNQALNAMLIGSRDKQKENDKLRESLSRKTVSLEHLQREYAS  
 VKEENERLQKEGSEKERHNQQLIQEVRCSGQELSRVQEELKLRQQLLSQNDK  
 LLQSLRVELKAYEKLDEEHRLREASGEGWKGQDPFRDLHSLMEIQALRLQ  
 25 LERSIETSSTLQSRLEQLARGAEKAQEGALTLAVQAVSIPEVPLQPDKHDGDK  
 YPMESDNSFDLFDSSQAVTPKSVSETPPLSGNDTDSLSCDSGSSATSTPCVSRL  
 VTGHHLWASKNGRHVLGLIEDYEALLKQISQGQRLLAEMDIQTQEAPSSTSQE  
 LGTKGPHAPLSKFVSSVSTAKLTLEEAYRRLKLLWRVSLPEDGQCPLHCEQIG  
 EMKAEVTKLHKKLFEQEKKLQNTMKLLQLSKRQEKVIFDQLVVTHKILRKAR  
 30 GNLELRPGGAHPGTCSPSRPGS  
 -COOH

Figure 21- Partial Amino Acid Sequence (KIAA1633) (SEQ ID NO: 45)

NH<sub>2</sub>-THAYNPKSPPTQNSSASSVNWNSANPDDMVVDYETDPAVVTGENISLSL  
 QGVEVFGHEKSSSDFISKQVLDMHKDSICQCPALVGTEKPKYLQHSCHSLEAV  
 EGQSVEPSLPFVWKPNDNLNCAGYCDALELNQTFDMTVDKVNCTFISHHAIG  
 KSQSFHTAGSLPPTGRRSGSTSSLSYSTWTSSHSDKTHARETTYDRESFENPQV  
 5 TPSEAQDMTYTAFSDVVMQSEVFVSDIGNQCACSSGKVTSEYTDGSQQRLVG  
 EKETQALTPVSDGMEVPNDSALQEFFCLSHDESNSEPHSQSSYRHKEMGQNL  
 RETVSYCLIDDECPLMVPAFDKSEAQVLNPEHKVTETEDTQMVSKGKDLGTQ  
 NHTSELILSSPPGQKVGSSFGLTWDANDMVISTDKTMCMSTPVLEPTKVTFSV  
 SPIATEKCKKVEKGNRGLKNIPDSKEAPVNLCKPSLGKSTIKTNTPIGCKVRK  
 10 TEIISYPRPNFKNVKAKVMSRAVLQPKDAALSKVTTPRPQOTSASSPSSVNSRQ  
 QTVLSRTPRSDLNADKKAELINKTHKQQFNKLITSQAVHVTTHSKNASHRVP  
 RTTSAVKSNQEDVDKASSSNSACETGSVSALFQKIKGILPVKMESAECLEMTY  
 VPNIDRISPEKKGEKENGTSMEKQELKQEIMNETFEYGSFLGSASKTTTTSGR  
 NISKPDSCGLRQIAAPKAKVGPPVSLRRNSDNRNPSADRAVSPQRIRRVSSSS  
 15 GNAAVIKYEEKPPKPAFQNGSSGSFYLKPLVSRHVHLMKTPPKGPSRKNLFT  
 ALNAVEKSRQKNPRSLCIQPQTAPDALPPEKTLELTQYKTKCENQSGFILQLKQ  
 LLACGNTKFEALTVVIQHLLSEREEALKQHKTLSQELVNLRGELVTASTTCEK  
 LEKARNELQTVYEAQVQHQAEKTERENRLKEFYTREYEKLRDYEIEAEKY  
 KMQLQEQFDNLNAAHETSKLEIEASHSEKLELLKKAYEASLSEIKKGHEIEKK  
 20 SLEDLLSEKQESLEKQINDLKSENDALNEKLKSEEQKRRAREKANLKNPQIMY  
 LEQELESKAVLEIKNEKLHQQDIKLMKMEKLVNNTALVDKLRFFQGENEE  
 LKARMDKHMAISRQLSTEQAVLQESLEKESKVNKRLSMENEELLWKLHNGD  
 LCSPKRSPTSSAIPLQSPRNSGSFPSPSISPR  
 -COOH  
 25

Figure 22- Partial Amino Acid Sequence (KIAA1288(1191)) (SEQ ID NO: 46)

NH<sub>2</sub>-MPVFHTRTIESILEPEAQQISHLVIMHEEGEVDGKAIPDLTAPVAAVQAAV  
SNLVRVGKETVQTTEDQILKRDMPPAFIKVENACTKLVQAAQMLQSDPYSP  
ARDYLIDGSRGILSGTSDLLTFDEAEVRKIIRVCKGILEYLTVAEVVETMEDLV  
TYTKNLGPGMTKMAKMIDERQQELTHQEHVMLVNSMNTVKELLPVLISAM  
5 KIFVTSKNSKNQGIEEALKNRNFTVEKMSAEINEIIRVLQLTSWDEDAWASKDT  
EAMKRALASIDSKLNQAKGWLRDPNASPGDAGEQAIRQILDEAGKVGELCA  
GKERREILGTCKMLGQMTDQVADLRARGQGASPVAMQKAQQVSQGLDVVT  
AKVENAARKLEAMTNSKQSIAKKIDAAQNWLADPNGGPEGEEQIRGALAEA  
RKIAELCDDPKERDDILRSLGEIAALTSKLGDLRRQGKGDSPEARALAKQVAT  
10 ALQNLQTKTNRAVANSRPAKAAVHLEGKIEQARRWIDNPTVDDRGVGQAAIR  
GLVAEGHRLANVMMGPYRQDLLAKCDRVDQLTAQLADLAARGESESPQAR  
ALASQLQDSLKDLKAQMQEAMTQEVSDVFSDTTTPIKLLAVAATAPPDAPNR  
EEVFDERAANFENHSGRLGATAEKAAAVGTANKSTVEGIQASVKTARELTPQV  
ISAARILLRNPNGNQAAYEHFETMKNQWIDNVEKMTGLVDEAIDTKSLLDASEE  
15 AIKKDLKCKVAMANIQQPQMLVAGATSIARRANRILLVAKREVENSEDPKFRE  
AVKAASDELSTISPMVMDAKAVAGNISDPDLQKSFLDSGYRILGAVAKVREA  
FQPQEPDFPPPPPDLEQLRLTDELAPPKPLPEGEVPPPRPPPPPEEKDEEFPEQK  
AGEVINQPMMAARQLHDEARKWSSKGNIIAAAKRMALLMAEMSRLVRG  
GSGTKRALIQCAKDIAKASDEVTRLAKEVAKQCTDKRIRTNLLQVCERIPTIST  
20 QLKILSTVKATMLGRTNISDEESEQATEMLVHNAQNLMQSVKETVREAEAASI  
KIRTDAGFTLRWVRKTPWYQ  
-COOH

Figure 23- Full-length Amino Acid Sequence (mVCL) (SEQ ID NO: 47)

5'-GGGCACGACTCCAGCCTCTTCGAGGACAGAAGCGACCATGACAAACAC  
AAGGACAGAAAAACGGAAAAAGAGGAAGAAAGGCGAGAAGCAGGCTCCC  
GGGGAAGAGAAGGGGAGAAAACGGAGAAGAGTCAAGGAGGATAAAAAG  
AAGCGGGATCGAGACCGTGCAGAGAATGAGGTGGACAGAGATCTCCAGTG  
5 TCATGTCCCTATAAGATTAGACTTACCTCCTGAGAAGCCTCTTACAAGCTCG  
TTAGCCAAACAAGAAGAAGTAGAACAGACACCCCTTCAGGAAGCTTTGAA  
TCAGCTCATGAGACAATTGCAAAGTACCATGAAAGAAAAGATCAAGAATA  
ACGACTACCAGTCCATAGAAGAACTAAAGGATAACTTCAAGCTAATGTGTA  
CTAATGCAATGATTTACAATAAGCCAGAGACCATTTATTATAAAGCTGCAAA  
10 GAAGCTGTTGCACTCAGGGATGAAAATTCTCAGTCAGGAGAGAATTCAGA  
GCCTGAAGCAGAGTATAGACTTCATGTCAGACTTGCAGAAAACCTCGGAAG  
CAGAAAGAACGAACAGATGCCTGTCAGAGTGGGGAGGACAGCGGCTGCT  
GGCAGCGCGAGAGGGAAGACTCTGGAGATGCTGAAACACAGGCCTTCAG  
AAGCCCCGCTAAGGACAATAAAAGGAAAGACAGAGATGTGCTTGAAGACA  
15 AATGGAGAAGCAGCAACTCAGAAAGGGAGCATGAGCAGATTGAGCGCGTT  
GTCCAGGAGTCAGGAGGCAAGCTAACACGGCGGCTGGCAAACAGTCAGT  
GTGAATTTGAA-3'

Figure 24- Partial cDNA Nucleotide Sequence Encoding the Amino Acid Sequence of  
20 SEQ ID NO: 6 (SEQ ID NO: 48) (807 nucleotides in total)

5'-GCCATCGTGGAGCGCAGAGCCAACCTGCTGCGGGCTGAGATTGAGGAG  
CTGCGGGGCCACGCTGGAGCAGACGGAGAGGAGCAGGAAGATTGCAGAGC  
AGGAGCTGCTGGACGCCAGTGAGCGCGTGCAGCTCCTCCACACCCAGAAC  
ACGAGCCTCATCAACACCAAGAAGAAGCTGGAAAATGATGTTTCACAGCT  
5 GCAGAGTGAAGTGGAAGAAGTGATTCAAGAGTCACGCAATGCAGAAGAG  
AAGGCTAAGAAAGCCATTACTGATGCCGCCATGATGGCGGAGGAGCTGAA  
GAAGGAGCAGGACACCAGCGCCACCTGGAGCGGATGAAGAAGAACATG  
GAG-3'

- 10 Figure 25- Partial cDNA Nucleotide Sequence Encoding the Amino Acid Sequence of  
SEQ ID NO: 10 (SEQ ID NO: 49) (348 nucleotides in total)

5'-GAAAAACAAGAGCTGAAACAAGAGATTATGAATGAGACTTTTGAATATG  
 GTTCTCTGTTTTTGGGCTCTGCTTCAAAAAACAACGACCACCTCAGGTAGGA  
 ATATATCCAAGCCTGACTCCTGCGGTTTGAGGCAAATAGCTGCTCCAAAAG  
 CCAAAGTGGGGCCCCCTGTTTCCTGTTTGAGGCGGAACAGTGACAATAGA  
 5 AATCCCAGTGCTGATCGAGCCGTATCTCCTCAGAGGATCAGGCGTGTGTCC  
 AGTTCTGCTGGTAATGCCGCTGTCATCAAGTATGAGGAGAAACCTCCAAA  
 CCAGCATTTTCAAGATGGTTCCTCAGGATCCTTTTATTTGAAGCCTTTGGTAT  
 CCAGGGCTCATGTTCACTTGATGAAAACCTCCTCCAAAAGGTCCTTCGAGAA  
 AAAATTTATTTACAGCTCTTAATGCAGTTGAAAAGAGCAAGCAAAAGAATC  
 10 CTCGAAGCTTATGTATCCAGCCACAGACAGCTCCCGATGCGCTGCCCCCTG  
 AAAAAACACTTGAATTGACGCCATATAAAACAAAATGTGAAAACCAAAGT  
 GGATTTATCCTGCAGCTCAAGCAGCTTCTTGCCTGTGGTAATACCAAGTTTG  
 AGGCATTGACAGTTGTGATTCAGCACCTGCTGTCTGAGCGGGAGGAAGCA  
 CTGAAACAACACAAAACCCTATCTCAAGAACTTGTTAACCTCCGGGGAGA  
 15 GCTAGTCACTGCTTCAACCACCCGTGAGAAATTAGAAAAAGCCAGGAATG  
 AGTTACAAACAGTGTATGAAGCATTTCGTCCAGCAGCACCAGGCTGAAAAA  
 ACAGAACGAGAGAATCGGCTTAAAGAGTTTTACACCAGGGAGTATGAAAA  
 GCTTCGGGACACTTACATTGAAGAAGCAGAGAAGTACAAAATGCAATTGC  
 AAGAGCAGTTTGGCAACTTAAATGCTGCGCATGAAACCTTTAAGTTGGAAA  
 20 TTGAAGCTAGCCACTCAGAGAACTTGAATTGCTAAAGAAGGCCTATGAA  
 GCCTCCCTTTCAGAAATTAAGAAAGGCCATGAAATAGAAAAGAAATCGCTT  
 GAAGATTTACTTTCTGAGAAGCAGGAATCGCTAGAGAAGCAAATCAATGAT  
 CTGAAGAGTGAAAATGATGCTTTAAATGAAAAATTGAAATCAGAAGAACA  
 AAAAAGAAGAGCAAGAGAAAAAGCAAATTTGAAAAATCCTCAGATCATGT  
 25 ATCTAGAACAGGAGTTAGAAAGCCTGAAAGCTGTGTTAGAGATCAAGAAT  
 GAGAAACTGCATCAACAG-3'

Figure 26- Partial cDNA Nucleotide Sequence Encoding the Amino Acid Sequence of  
 SEQ ID NO: 25 (SEQ ID NO: 50) (1281 nucleotides in total)

NH<sub>2</sub>-TRPIIARAQCPGLGTMKR TDSGSICHHAPPPCWAHHAPRQSPRQPSSRER  
RPPERAGSWAVAAEEEEAAASAAPWMRHYFGEDDGEMVPTSSAAAF LSDK  
DRGPPVQSQTWRS AERV PFGQAHS LRAFEK PPLVQTQALRDFE KHLNDLKKE  
NFS LKLRIYFLEERMQQKYEV SREDVYKR NIELKVEVES LKRELQDRKQHLD  
5 KTWADAEDLNSQNEAELRRQVEERQQETEHVYELLGNKIQLLQEEPRLAKNE  
ATEMETLVEAEKRCNLELSE RWTNAAKNREDAAGDQEKPDQYSEALAQ RDR  
RIEELRQSLAAQEG LVEQLSQEK RQLLHLL EEPASMEVQPV PKGLPTQ QKPD L  
HETPTTQPPVSESHLAELQDKIQQTEATNKILQEKLNDLSCELKSAQESSQKQD  
TTIQSLKEM LKSRESETEELYQVIEGQNDTMAKLREMLHQSQLGQLHSSEGIA  
10 PAQQQVALLDLQSALFCSQLEIQRLQRLVRQKERQLADGKRCVQLVEAAAQE  
REHQKEAAWKHNQELRKALQHLQGELHKSQQLHVLEAEKYNEIRTQGQNI  
QHLSHSLSHKEQLIQELQELLQYRDNADKTLDTNEVFLEKLRQRIQDRAVALE  
RVIDEKFSALEEKDKELRQLRLAVRDRDHDLERLRCVLSANEATMQSMESLL  
RARGLEVEQLTATCQNLQWLKEELETKFGHWQKEQESIQQQLQTS LHDRNKE  
15 VEDLSATLLCKLGPGQSEVAEELCQRLQRKERMLQDLLSDRNKQAVEHEMEI  
QGLLQSMGTREQERQAAAEK MVQAFMERNSELQALRQYLGGKELMTSSQTF  
ISNQPAGVTSIGPHHGEQTDQGS MQMPSRDDSTSLTAREEASIPRSTLGDSDTV  
AGLEKELSNAKEELELMAKKKKK  
-COOH  
20

Figure 27- Partial Amino Acid Sequence (mBC028274(908)) (SEQ ID NO: 87)

NH<sub>2</sub>-MRADFNPSGFSLELAVCVLSVGLLAVVFLWRGFRSIRSRFYVGREKKLA  
LELSALIEEKCKLLDKVSIVQKEYEGLESSLKEASFEKESTEAQSLEFVEGSQIS  
EATYENLEQSKSKLEDEILLLEEKLEERAKHSEQDELMADISKRIQSLEDESK  
SLKSQVAEAKTTFRIFEINEERLKGAIKDALNENSQSQKQLQETEMMKE  
5 QVNDLDKQKVALEESRAQAEQALSEKESQIETLVTSLLKMKDWAAVLGEADD  
GNLDLDMKSGLENTAALDNQPKGALKKLIYAAKLNASLKALEGERNQVYTQ  
LSEVDQVKEDLTEHIKSLESKQASLQSEKTEFESESQKLQKQKLKVITELYQENE  
MKLHRKLTVEENYRLEKEEKLSKVDEKISHATEELETCTQRAKDLEELERTI  
HSYQGGQVISHEKKAHDNWLAARTLERNLNDLRKENAHNRQKLTETEFKFELL  
10 EKDPYALDVPNTAFGREHSPYGPSPLGRPPSETRAFLSPPTLLEGPLRLSPLLPG  
GGGRGSRGPENLLDHQMNTERGESSYDRLSDAPRAPSDRSLSPWEQDRRMT  
AHPPPGQPYSDPALQRQDRFYFNSGRLSGPAELRSYNMPSLDKVDGPVPSEME  
SSGNGTKDNLGNSNVPDSPIPAEECAAGRGFPPPPFPPVRDPLFPVDPRSQFMR  
RGPSFPPPPPGSIYAAPRDYFPPRDFPGPPLPPFPGRTVYAPRGFPPYLPPRAGFF  
15 PPPHPESRSELPPDLIPPSKEPAADPPETQEA  
-COOH

Figure 28- Full-length Amino Acid Sequence (mBC026864(777)) (SEQ ID NO: 88)

NH<sub>2</sub>-MDGKQACERMIRALELDPNLYRIGQSKIFFRAGVLAHLEEERDLKITDIII  
FFQAVCRGYLARKAFAKKQQQLSALKVLQRNCAAYLKLRLHWQWWRVFTKV  
KPLLQVTRQEEELQAKDEELLKVKEKQTKVEGELEEMERKHQQLLEEKNILA  
EQLQAETELFAEAEEMRARLAACKQELEEILHDLESRVEEEEERNQILQNEKK  
5 KMQAHIQDLEEQLDEEEGARQKLQLEKVTAEAKIKKMEEEVLLLEDQNSKFI  
KEKKLMEDRIAECSSQLAEEEEKAKNLAKIRNKQEVMSDLEERLKKEEKTR  
QELEKAKRKLDGETTDLQDQIAELQAQVDELKVQLTKKEEELQGALARGDD  
ETLHKNNALKVARELQAQIAELQEDFESEKASRNKA EKQKRDLSEELEALKT  
ELEDTLDTTAAQQELRTKREQEVAELKKALEDETKNHEAQIQDMRQRHATAL  
10 EELSEQLQAKRFKANLEKNKQGLETDNKEACEVKVLQQVKAESEHKRKK  
LDAQVQELHAKVSEGDRRLVELAEKANKLQNELDNVSTLLEEAEKKGIKFAK  
DAAGLESQ LQDTQELLQEETRQKLNLSRIRQLEEEKNSLQEQEEEEEEARKN  
LEKQVLALQSQLADTKKKVDDDLGTIESLEEAKKKLLKDVEALSQRLEEKVL  
AYDKLEKTKNRLQQELDDLTVDLDHQRQIVSNLEKKQKKFDQLLAEKGISA  
15 RYAEERDRAEAEAREKETKALSLARALEEAEAKEEFERQNKQLRADMEDL  
MSSKDDVGKNVHELEKSKRALEQQVEEMRTQLEEELEDELQATEDAKLRLEV  
NMQAMKAQFERDLQTRDEQNEEKKRLLKQVRELEAELEDERKQRALAVAS  
KKKMEIDLKDLEAQIEAANKARDEVIKQLRKLQAQM KDYQRELEEARASRD  
EIFAQSESEKKLSLEAEILQLQEELASSERARRHAEQERDELADEIANSASG  
20 KSALLDEKRRLEARIAQLEEELEEEQSNMELLNDRFRKTTLQVDTLNTLAAE  
RSAAQKSDNARQQLERQNKELKAKLQELEGA VKSKFKATISALEAKIGQLEE  
QLEQEAKERAAANKLVR RTEKKLKEIFMQVEDERRHADQYKEQMEKANAR  
MKQLKRQLEEAEEEATRANASRRKLQRELDDATEANEGLSREVSTLKNRLRR  
GGPISFSSSRSGRRQLHIEGASLELSDDDTESKTS DVNDTQPPQSE  
25 -COOH

Figure 29- Full-length Amino Acid Sequence (m5730504C04Rik) (SEQ ID NO: 89)

NH<sub>2</sub>-MAQQAADKYLYVDKNFINNPLAQADWAAKKLVWVPSSKNGFEPASLKE  
 EVGEEAIVELVENGKKVKVNKDDIQKMNPCKFSKVEDMAELTCLNEASVLHN  
 LKERYYSGLIYTYSGLFCVVINPYKNLPIYSEEIVEMYKGKKRHEMPPHIYAIT  
 DTAYRSMMQDREDQSILCTGESGAGKTENTKKVIQYLAHVASSHKSCKDQGE  
 5 LERQLLQANPILEAFGNAKTVKNDNSSRFGKFIRINFDVNGYIVGANIETYLL  
 KSRAIRQAKEERTFHIFYLLSGAGEHLKTDLLLEPYNKYRFLSNGHVTIPGQ  
 QDKDMFQETMEAMRIMGIPEDQMGLLRVISGVLQLGNIAFKKERNTDQAS  
 MPDNTAAQKVSHLLGINVTDFTRGILTPIKVGGRDYVQKAQTKEQADFAIEAL  
 AKATYERMFRWLVLRLINKALDKTKRQGASFIGILDIAGFEIFDLNSFEQLCINY  
 10 TNEKLQQLFNHTMFILEQEEYQREGIEWNFIDFGLDLQPCIDLIEKPAGPPGILA  
 LLDEECWFPKATDKSFVEKVVEQEGTHPKFQKPKQLKDKADFCIIHYAGKVD  
 YKADEWLMKNMDPLNDNIATLLHQSSDKFVSELWKDQVDRIIGLDQVAGMSE  
 TALPGAFKTRKGMFRTVGQLYKEQLAKLMATLRNTNPNFVRCIIPNHEKKAG  
 KLDPHLVLDQLRCNGVLEGIRICRQGFPNRVVFQEFRQRYEILTNPSPKGFMD  
 15 GKQACVLMIKALELDSNLYRIGQSKVFFRAGVLAHLEEERDLKITDVIIGFQA  
 CCRGYLARKAFARQQQLTAMKVLQRNCAAYLRLRNWQWWRLFTKVKPLL  
 NSIRHEDELLAKEAELTKVREKHLAAENRLTEMETMQSQLMAEKLQLQEQLQ  
 AETELCAEAEELRARLTAKKQEELEICHDLARVEEEEEERCQYLQAEKKKMQ  
 QNIQELEEQLEEEEESARQKLQLEKVTTEAKLKKLEEDQIIMEDQNCKLAKEKK  
 20 LLEDRAVEFTTNLMEEEEKSKSLAKLKNKHEAMITDLEERLRREEKQRQELEK  
 TRRKLEGDSTDLSQIAELQAQIAELKMQLAKKEEELQAALARVEEEAAQKN  
 MALKKIRELETQISELQEDLESERASRNKAQKQKRDLEGELEALKTELEDTL  
 STAAQQLRSKREQEVSILKKTLEDEAKTHEAQIQEMRQKHSQAVEELADQL  
 EQTKRVKATLEKAKQTLNERGELANEVKALLQGKGDSSEHKRKKVEAQLQE  
 25 LQVKFSEGERVTELADKVTKLQVELDSVTGLLSQSDSKSSKLTDFSALESQ  
 LQDTQELLQEEENRQKLSLSTKLKQMEDEKNSFREQLEEEEAAKRNLEKQIATL  
 HAQVTDMMKKKMEDGVGCLETAEEAKRRLQKDLEGLSQRLEEKVAAYDKLE  
 KTKTRLQQELDDLLVDLDHQRQSVSNLEKKQKKFDQLLAEEKTISAKYAEER  
 DRAEAEAREKETKALSLARALEEAMEQKAELERLNKQFRTEMEDLMSSKDD  
 30 VGKSVHELEKSKRALEQQVEEMKTQLEEELEDELQATEDAKLRLEVNLQAMK  
 AQFERDLQGRDEQSEEKKQLVRQVREMAELEDERKQRSMAMAARKKLE  
 MDLKDLEAHIDTANKNREEAIKQLRKLAQMKDCMRELDDTRASREEILAQ  
 AKENEKKLSMEAEMIQLQEELAAAERAKRQAQQRDELADEIANSSGKGA  
 LALEEKRRLEARIALLEEELEEEQGNTELINDRLKKANLQIDQINTDLNLSH  
 35 AQKNENARQQLERQNKELKAKLQEMESAVKSKYKASIAALEAKIAQLEEQL  
 DNETKERQAASKQVRRTEKKLKDVLQVEDERRNAEQFKDQADKASTRLKQ  
 LKRQLEEAEEEAQRANASRRKLQRELEDATETADAMNREVSSLKNKLRRGDL  
 PFVVTRRIVRKGTGDCSDEEVDGKADGADAKAAE  
 -COOH  
 40

Figure 30- Full-length Amino Acid Sequence (mMYH9) (SEQ ID NO: 42)

NH<sub>2</sub>-MSAAKENPCRKFQANIFNKSKCQNCFKPRESHLLNDEDLTQAKPIYGGW  
LLLAPDGTDFDNPVHRSRKWQRRFFILYEHGLLRYALDEMPPTLPQGTINMN  
QCTDVVDGEARTGQKFSLCILTPDKEHFIRAETKEIISGWLEMLMVYPRTNKQ  
NQKKKRKVEPPTPQEPGPAKMAVTSSSGGTSGSSSSIPSAEKVPTTKSTLWQEE  
5 MRAKDQPDGTSLSPAQSPSQSQPPAACTPREPGLESKEDESTISGDRVGGGRK  
VRVESGYFSLEKAKQDLRAEEQLPPLSPSPSTPHSRRSQVIEKFEALDIEKAE  
HMETNMLILTTPSSDTRQGRSERRAIPRKRDFASEAPTAPLSDACPLSPHRAK  
SLDRRSTESSMTPDLLNFKKGWLTQYEDGQWKKHWFVLADQSLRYYRDSV  
AEEAADLDGEINLSTCYDVTEYPVQRNYGFQIHTKEGEFTLSAMTSGIRRNWI  
10 QTIMKHVLPASAPDVTSSLPEGKNKSTSFETCSRSTEKQEAEPGEPDPEQKKS  
ARERRREGRSKTFDWAEFRPIQQALAQERASAVGSSDSGDPGCLEAEPGELER  
ERARRREEPRKRFGMLDTIDGPGMEDTALRMDIDRSPGLLGTPDLKTQNVHV  
EIEQRWHQVETTPLRREEKQVPIAPLHLSLEDRSERLSTHELTSLLEKELEQSQK  
EASDLLEQNRLQLDQLRVALGREQSAREGYVLQATCERGFAAMEETHQKKIE  
15 DLQRQHQRLEKLREEKDRLLAEETAATISAIEAMKNAHREEMERELEKSQRS  
QISSINDIEALRRQYLEELQSVQRELEVLEQYSQKCLENAHLAQALEAERQ  
ALRQCQRENQELNAHNQELNNRLAAEITRLRTLLTGDDGGESTGLPLTQGKD  
AYELEVLLRVKESEIQYLKQEISSLKDELQTALRDKKYASDKYKDIYTELSIAK  
AKADCDISRLKEQLKAATEALGEKSPEGTTVSGYDIMKSKSNPDFLKKDRSCV  
20 TRQLRNIRSKSVIEQVSWDN  
-COOH

Figure 31- Full-length Amino Acid Sequence (mp116Rip) (SEQ ID NO: 91)

NH<sub>2</sub>-MMEAIIKKKMQLKLDKENALDRAEQAEAEQKQAEERSKQLEDELAA  
MQKKLKGTEDELDRATERLATALQKLEEAEEKAADSESRGMKVIENTALKDE  
EKMELQEIQLEAKHIAEEADRKYEEVARKLVIIIEGDLERTEERAELAESKCSE  
5 LEEELKNVTNNLKSLEAQAEKYSQKEDKYEEEIKILTDKLKEAETRAEFAERS  
VAKLEKTIDDLEDELYAQKLKYKAISEELDHALNDMTSI  
-COOH

Figure 32- Full-length Amino Acid Sequence (TPM3) (SEQ ID NO: 92)

NH<sub>2</sub>-MTDAQMADFGAAAQYLRKSEKERLEAQTRPFDIRTECFVPDDKEEFVK  
AKILSREGGKVIAETENGKTVTVKEDQVLQQNPPKFDKIEDMAMLTFLHEPAV  
LFNLKERYAAWMIYTYSGLFCVTVPYKWLVPVYNAEVVAAYRGKKRSEAPP  
HIFSISDNAYQYMLTDRENQSILITGESGAGKTVNTKRVIQYFASIAAIGDRGKK  
5 DNANANKGTLEDQIIQANPALEAFGNAKTVRNDNSSRFGKFIRIHFGATGKLA  
SADIETYLLEKSRVIFQLKAERNYHIFYQILSNKKPELLDMLLVTTNNPYDYAFV  
SQGEVSVASIDDSEELMATDSAFDVLGFTSEEKAGVYKLTGAIMHYGNMKFK  
QKQREEQAEPDGTEDADKSAYLMGLNSADLLKGLCHPRVKVGNEYVTKGQS  
VQQVYYSIGALAKAVYEKMFNWMVTRINATLETQPRQYFIGVLDIAGFEIFD  
10 FNSFEQLCINFTNEKLQQFFNHMFVLEQEEYKKEGIEWTFIDFGMDLQACID  
LIEKPMGIMSILEEECMFPKATDMTFKAKLYDNHLGKSNNFQKPRNIKGKQEA  
HFSLIHAGTVDYNILGWLEKNKDPLNETVVALYQKSSLKLMATLFSSYATAD  
TGDSGKSKGGKKKGSSFQTVSALHRENLNKLMTNLRTTHPHFVRCHPNERKA  
PGVMDNPLVMHQLRCNGVLEGIRICRKGFPNRILYGDFRQRYRILNPVAIPEGQ  
15 FIDSRKGTEKLLSSLDIDHNQYKFGHTKVFFKAGLLGLLEEMRDERLSRIITRM  
QAQARGQLMRIEFKKIVERRDALLVIQWNIRAFMGVKNWPWMKLYFKIKPLL  
KSAETEKEMATMKEEFGRKETLEKSEARRKEEEKMVSLLEKNDLQLQVQ  
AEQDNLNDAEERCDQLIKNKIQLEAKVKEMNERLEDEEEMNAELTAKKRKLE  
DECSELKKDIDDLELTAKVEKEKHATENKVKNLTEEMAGLDEIIAKLTKEKK  
20 ALQEAHQQALDDLQVEEDKVNSLSKSVKLEQQVDDLEGSLEQEKVVRMDL  
ERAKRKLEGDLLKTQESIMDLENDKLQLEEKLKKKEFDINQQNSKIEDEQVLA  
LQLQKKLKENQARIEEEEELEAERTARAKVEKLRSCLSRELEEISERLEEAGG  
ATSVQIEMNKKREAEFQKMRRDLEEATLQHEATAAALRKKHADSVAELEGEI  
DNLQRVKQKLEKEKSEFKLELDDVTSNMEQIIKAKANLEKVSRTLEDQANEY  
25 RVKLEEAQRSLNDFTTQRAKLQTENGELARQLEEKEALISQLTRGKLSYTQQ  
MEDLKRQLEEEGKAKNALAHALQSARHDCDLLREQYEEETEAKAELQRVLS  
KANSEVAQWRTKYETDAIQRTEELEEAKKKLAQRLQDAEEAVEAVNAKCSSL  
EKTKHRLQNEIEDLMVDVERSNAAAAAALDKKQRNFDKILAEWKQKYEESQS  
ELESSQKEARSLSTELFKLKNAYEESLEHLETFKRENKNLQEEISDLTEQLGEG  
30 GKNVHELEKVRKQLEVEKLELQSALEEAASLEHEEGKILRAQLEFNQIKAEI  
ERKLAEKDEEMEQAKRNHQRVVDLSLQTSLEDAETRSRNEVLRVKKKMEGDLN  
EMEIQLSHANRMAAEAQKQVKSLSLLKDTQIQLDDAVRANDDLKENIAIVE  
RRNNLLQAELEELRAVVEQTERSRLAEQELIETSERVQLLHSQNTSLINQKK  
KMESDLTQLQSEVEEAVQECRNAEEKAKKAITDAAMMAEELKKEQDTSABL  
35 ERMKKNMEQTIKDLQHRLEAEQIALKGGKKQLQKLEARVRELEGELEAEQ  
KRNAESVKGMRKSERRIKELTYQTEEDKKNLLRLQDLVDKLQLKVAYKRQ  
AEEAEEQANTNLSKFRKVQHELDEAEERADIAESQVNKLRAKSRDIGAKQKM  
HDEE  
-COOH

40

Figure 33- Full-length Amino Acid Sequence (MYH6) (SEQ ID NO: 93)

NH<sub>2</sub>-MDEAETDATENKRASEAKRASAMPPPPPPPPISPPALIPAPAAGEEGPASL  
GQAGAAGCSRSRPPALEPERSLGRLRGRFEDYDEELEEEEEEEMEEEEEEEEEMS  
HFSRLRESGRADSEDEEERLINLVELTPYILCSICKGYLIDATTITECLHTFCKSCI  
VRHFYYSNRCPKCNIVVHQTQPLYNIRLDRQLQDIVYKLVINLEEREKKQMH  
5 DFYKERGLEVPKPAAPQPVPSSKGKTKKVLESVFRIPPELDMSLLLEFIGANED  
TGHFKPLEKKFVRVSGEATIGHVEKFLRRKMGLDPACQVDIICGDHLLERYQT  
LREIRRAIGDTAMQDGLLVLYGLVVSPLKIT  
-COOH

10 Figure 34- Full-length Amino Acid Sequence (mMBLR) (SEQ ID NO: 94)

NH<sub>2</sub>-MHRTTRIKITELNPHLMCALCGGYFIDATTIVECLHSFCKTCIVRYLETNK  
YCPMCDVQVHKTRPLLSIRSDKTLQDIVYKLVPGLFKDEMKRRRDFYAAAYPLT  
EVPNGSNEDRGEVLEQEKALGDDEIVSLSIEFYEGVRDREEKKNLTENGDG  
DKEKTGVRFLRCPAAMTMHLAKFLRNKMDVPSKYKVEILYEDEPLKEYYT  
5 LMDIAYIYPWRRNGPLPLKYRVQPACKRLTLPTVPTPSEGTNTSGASECESVSD  
KAPSPATLPATSSSLPSPATPSHGSPSSHGPPATHPTSPTPPSTAAGTTTATNGGTS  
NCLQTPSSTSRRGRKMTVNGAPCPP  
-COOH

10 Figure 35- Full-length Amino Acid Sequence (mZFP144) (SEQ ID NO: 95)

NH<sub>2</sub>-MHRTTRIKITELNPHLMCALCGGYFIDATTIVECLHSFCKTCIVRYLETNK  
YCPMCDVQVHKTRPLLSIRSDKTLQDIVYKLVPGLFKDEMKRRRDFYAAAYPLT  
EVPNGSNEDRGEVLEQEKGALSDDDEIVSLSIEFYEGAGDRDEKKGPLENGDG  
DKEKTGVRFLRCPAAMTVMHLAKFLRNKMDVPSKYKVEVLYEDEPLKEYYT  
5 LMDIAYIYPWRRNGPLPLKYRVQPACKRLTLATVPTPSEGTNTSGASESSGATT  
AANGGSLNCLQTPSSTSRRGRKMTVNGAPVPPLT  
-COOH

10 Figure 36- Full-length Amino Acid Sequence (ZNF144(294)) (SEQ ID NO: 65)

NH<sub>2</sub>-MDDREDLVYQAKLAEQAERYDEMVESMKKVAGMDVELTVEERNLLSV  
AYKNVIGARRASWRIISSIEQKEENKGGEDKCLKMIREYRQMVETELKLICCDIL  
DVLDKHLIPAANTGESKVFYYKMGDYHRYLAEFATGNDRKEAAENSLVAY  
KAASDIAMTELPPTHPIRLGLALNFSVFYYEILNSPDRACRLAKAAFDDAIAEL  
5 DTLSEESYKDSTLIMQLLRDNLTWTSDMQGDGEEQNKEALQDVEDENQ  
-COOH

Figure 37- Full-length Amino Acid Sequence (14-3-3epsilon) (SEQ ID NO: 96)

NH<sub>2</sub>-REASHPLCTGPAQAGLAHRCLLAALMGKRLGTGDCLWPTQLLGQWPVT  
LVCLRPLCPLMFLVLELELLPGTLQLHPPCLIPPGRPGH  
-COOH

- 5 Figure 38- Partial Amino Acid Sequence (BF672897(87)) (SEQ ID NO: 69)

NH<sub>2</sub>-MATQADLMELDMAMEPDRKAAVSHWQQQSYLDSGIHSGATTTAPSLSG  
KGNPEEEDVDTSQVLYEWEQGFSQSFTQEQVADIDGQYAMTRAQRVRAAMF  
PETLDEGMQIPSTQFDAAHPTNVQRLAEPSQMLKHAVVNLINYQDDAELATR  
AIPELTKLLNDEDQVVVNKAAVMVHQLSKKEASRHAIMRSPQMVSIVRTMQ  
5 NTNDVETARCTAGTLHNLSHHREGLLAIFKSGGIPALVKMLGSPVDSVLFYAIT  
TLHNLLHQEGAKMAVRLAGGLQKMVALLNKTNVKFLAITTDCLQILAYGN  
QESKLIILASGGPQALVNIMRTYTYEKLLWTTSRVLKVLSSVCSSNKPAIVEAGG  
MQALGLHLTDPSQRLVQNCLWTLRNLSDAATKQEGMEGLLGLTLVQLLGSDDI  
NVVTCAAGILSNLTCNNYKNKMMVCQVGGIEALVRTVLRAGDREDITEPAIC  
10 ALRHLSRHQEAEMAQNAVRLHYGLPVVVKLLHPPSHWPLIKATVGLIRNLA  
LCPANHAPLREQGAIPRLVQLLVRAHQDTQRRTSMGGTQQQFVEGVRMEEIV  
EGCTGALHILARDVHNRI VIRGLNTIPLFVQLLYSPIENIQRVAAGVLCELAQD  
KEAAEAIEAEGATAPLTELLHSRNEGVATYAAAVLFRMSSEDKPQDYKKRLSVE  
LTSSLFRTEPMAWNETADLGLDIGAQGEALGYRQDDPSYRSFHSGGYGQDAL  
15 GMDPMMEHMGGHHPGADYPVDGLPDLGHAQDLMDGLPPGDSNQLAWFD  
TDL  
-COOH

Figure 39- Full-length Amino Acid Sequence (mCATNB) (SEQ ID NO: 97)

NH<sub>2</sub>-MDDSEVESTASILASVKEQEAQFEKLTRALEEERRHVSAQLERVRVSPQD  
ANSLMANGTLTRRHQNGRFVGDADLERQKFSDLKLNGPQDHNHLLYSTIPR  
MQEPGQIVETYTEEDPEGAMSVVSVETDDGTTRRTETTVKKVVKTMTRTV  
QPVPMGPDGLPVDASAVSNNYIQT LGRDFRKNNGGPGPYVGQAGTATLPRN  
5 FHYPDGYGRHYEDGYPGGSDNYGSLSRVTRIEERYRPSMEGYRAPSQRDVY  
GPQPQVRVGGSSVDLHRFHPEPYGLEDDQSRMGYDDL DYGMMSDYGTARRT  
GTPSDPRRRLRSYEDMIGEEVPPDQYYWAPLAQHERGSLASLDSL RKGMPPPS  
NWRQPELPEVIAMLGFR LDAVKSNAAAYLQHLCYRNDKVKTDVAKLKGIPIL  
VGLLDHPKKEVHLGACGALKNISFGRDQDNKIAIKNCDGVPALVRLLRKARD  
10 MDLTEVITGTLWNLSSHDSIKMEIVDHALHALTDEVII PHSGWEREPNEDCKPR  
HIEWESVLTNTAGCLRNVSSEARRKLRECDGLVDALIFIVQAEIGQKSDS  
KLVENCVCLLRNLSYQVHREIPQAERYQEALPTVANSTGPHAASCFGAKKGK  
GKKPTEDPANDTVDFPKRTSPARGYELLFQPEVVRIYISLLKESNTPAILEASAG  
AIQNLCAGRWTYGRYIRSALRQEKALSARAELLTSEHERVVKAASGALRNLA  
15 VDARNKELIGKHARP NLVKNLPGGQQNSSWNFSED TVVSILNTINEVIAENLE  
AAKKLRETQGIEKLVLINKSGNRSEKEVRAAALVLQTIWGYKELRKPLEKEG  
WKKSDFQVNLNNASRSQSSHSYDDSTLPLIDRNQKSDNNYSTLNERGDHNRT  
LDRSGDLGDMEPLKGAPLMQKI  
-COOH  
20

Figure 40- Full-length Amino Acid Sequence (mCATNS) (SEQ ID NO: 98)

NH<sub>2</sub>-MAVVIRLQGLPIVAGTMDIRHFFSGLTIPDGGVHIVGGELGEAFIVFATDE  
 DARLGMMRTGGTIKGSKVTLSSKTEMQNMIELSRRRFETANLDIPPANASR  
 SGPPSSSGMSSRVNLPATVPNFNNPSPSVVTATTSVHESNKNIQTFSTASVGTAP  
 PSMGTSFGSPTFSSTIPSTASPMNTVPPPIPIPIAMPSLPPLPSIPIPVPPVPTLP  
 5 PVPPVPIPIPVPSVPPMTTLPMSGMPPLNPPPVAPLPAGMNGSGAPIGLNNNM  
 NPVFLGPLNPVNSIQMNSQSSVKSLPINPDDLYVSVHGMPFSAMENDVREFFH  
 GLRVDVHLLKDHVGRNNGNGLVKFLSPQDTFEALKRNRMLMIQRYVEVSPA  
 TERQWVAAGGHITFKQSMGPSQAHPPPQTLPRSKSPSGQKRSRSPHEAGF  
 CVYLKGLPFEAENKHVIDFFKKLDIVEDSIYIAYGPNGKATGEGFVEFRNDAD  
 10 YKAALCRHKQYMGNRFIQVHPITKKGMLEKIDMIRKRLQNFSYDQRELVLNP  
 EGEVSSAKVCAHITNIPFSITKMDVLQFLEGIPVDENAVHVLVDNNGQGLGQA  
 LVQFKTEDDAHKSEHLHRKKLNGREAFVHIVTLEDMREIEKNPPAQGKKGLK  
 ISVPGNPAVPVIPSAGMPAAGIPTAGIPGAGLPSAGMPGAGMPSSGMPGPGMP  
 GPGIPGAGIPGPAMPGPAMPGPAMPGPAMPGPAMPGPAMPGPAMPGPAMPGP  
 15 AIPGPAIPGPAIPGPAIPGPTIPGAGIPSAGGEEHVFLTVGSKEANNGPPFNFGN  
 FGGPNAFGPPLPPPGLGGGGAFGDARPGMPVGNGLPGLGLDVPFGGGGNN  
 ISGPSGFGGIPQNFNGPGSLNAPPGFGSGPPGLGSVPGHLSGPPAFGPGPGPGL  
 IHIGGPPGFGASSGKPGPTIHKVQNMPTVTSIDEILDFFYGYQVIPGSVCLKYNE  
 KGMPTGEAMVAFESRDEATAAVIDLNDRPIGSRKVKLVLG  
 20 -COOH

Figure 41- Full-length Amino Acid Sequence (mSWAN) (SEQ ID NO: 99)

NH<sub>2</sub>-KEGRREHAFVPEPFTGTNLAPSLWLHRFEVIDDLNHWDHATKLRFLKES  
LKGDALDVYNGLSSQAQGDFSFKQALLRAFGAPGEAFSEPEEVLFANSMGK  
GYYLKGKVGHPVVRFLVDSGAQSVVHPALWEEVTDGDLDTLRPFNNVVKV  
5 ANGAEMKILGVWDTEISLGKTKLKAFLVANASAEAAIGTDVLQDHNAVLDF  
EHRTCTLKGKKFRLLPVGSSLEDEFDLELIEEEEGSSAPEGSH  
-COOH

Figure 42- Partial Amino Acid Sequence (m2300003P22Rik(248)) (SEQ ID NO: 100)

NH<sub>2</sub>-SPYSPRGGSNVIQCYRCGDTCKGEVVRVHNNHFHIRCFTCQVCGCGLAQ  
SGFFFKNQEYICAQDYQQLYGTRCDSCRDFITGEVISALGR TYRPKCFVCSLCR  
KPFPIGDKVTFSGKECVCQTCSQSMTSSKPIKIRGPSHCAGCKEEIKHGQSLLA  
LDKQWHVSCFKCQTCSVILTGEYISKDGVPYCESDYHSQFGIKCETCDRYISGR  
5 VLEAGGKHYHPTCARCVRCHQMFTEGEEMYLTGSEVWHPICKQAARAEKK  
-COOH

Figure 43 Partial Amino Acid Sequence (mTAKEDA015) (SEQ ID NO: 75)

NH<sub>2</sub>-MEVEQEQRRRKVEAGRTKLAHFRQRKTKGDSSHSEKKTAKRKGS AVDA  
SVQEESPVTKEDSALCGGGDICKSTSCDDTPDGAGGAFAAQPEDCDGEKRED  
LEQLQQKQVNDHPPEQCGMFTVSDHPPEQHGMFTVGDHPPEQGRGMFTVSDH  
PPEQHGMFTVSDHPPEQGRGMFTISDHQPEQGRGMFTVSDHTPEQRGIFTISDHPA  
5 EQRGMFTKECEQECELAITDLESGREDEAGLHQSQAVHGLELEALRLSLSNM  
HTAQLELTQANLQKEKETALTELREMLNSRRAQELALLQSRQQHELELLREQ  
HAREKEEVVLRCGQEA AELKEKLQSEMEKNAQIVKTLKEDWESEKDLCLEN  
LRKELSAKHQSEMEDLQNQFQKELAEQRAELEKIFQDKNQAERALRNLESHH  
QAAIEKLREDLQSEHGRCLEDLEFKFKESEKEKQLELENLQASYEDLKAQSQE  
10 EIRRLWSQLDSARTSRQELSELHEQLLARTSRVEDLEQLKQREKTQHESELEQL  
RIYFEKKLRDAEKTYQEDLTLLQORLQGAREDALLDSVEVGLSCVGLEEKPE  
KGRKDHVDELEPERHKESLPRFQAELEESHRHQLEALESPLCIQHEGHVSDRC  
CVETSALGHEWRLEPSEGHQSQELPWVHLQGVQDGDLEADTERAARVLGLET  
EHKVQLSLLQTELKEEIELLKIENRNLYGKLQHETRLKDDLEKVKHNLIEDHQ  
15 KELNNAKQKTELMKQEFQRKETDWKVMKEELQREAEKLTLMLELREKAE  
SEKQTIINKFELREAEMRQLQDQQAQILDLERSLTEQQGRLQQLEQDLTSD  
ALHCSQC GREPPTAQDGELAAHLVKEDCALQLMLARSRFLEERKEITEKFSAE  
QDAFLQEAQEQHARELQLLQERHQQLLSVTAELEARHQAAALGELTASLESK  
QGALLAARVAELQTKHAADLGALETRHLSSLDSESCYLSEFQTIREEHRQAL  
20 ELLRADFEEQLWKKDSLHQTILTQELEKLKRKHEGELQSVRDHLRTEVSTELA  
GTVAHELQGVHQGEFGSEKKTALHEKEETLRLQSAQAQPFHQEEKESLSLQL  
QKKNHQVQQKDKQVLSLSHEIEECRSELEVLQQRRERENREGANLLSMLKAD  
VNLSHSERGALQDALRRLGLFGETLRAAVTLRSRIGERVGLCLDDAGAGLA  
LSTALALEEMWSDVALPELDRTLSECAEMSSVAEISSHMCEFLMSPEVRECE  
25 QPIRRVFQSLSLAVDGLMEMALDSSSQLEEARQIHSRFEKEFSFKNEETAQVVR  
KHQELLECLKEESA AKAELALELHKQTQGTLEGFKVETADLKEVLGKEDSEH  
RLVLELESRLRQLQQA AQEAALREECTRLWSRGEATATDAEAREAAALRKEV  
EDLTKEQSETRKQAEKDRSALLSQMKILESELEEQLSQHRGCAKQAEAVTALE  
QQVASLDKHLRNQRQFMDEQA AEREHEREEFQQEIQRLLEGQLRQA AKPQPW  
30 GPRDSQQAPLDGEVELLQQKLREKLDEFNELAIQKESADRQVLMQEEEIKRLE  
EMNINIRKKVAQLQEEVEKQKNIVKGLEQDKEVLKKQQMSSLLLASTLQSTL  
DAGRCPEPPSGSPPEGPEIQLEVTQRALLRRESEVLDLKEQLEKMKGDLESKN  
EILHLNLKLD MQNSQTAVSLRELEEENTSLKVIYTRSSEIEELKATIENLQENQ  
KRLQKEKAEEIEQLHEVIEKLQHEL SLMGPVVHEVSDSQAGSLQSELLCSQAG  
35 GPRGQALQGELEAALEAKEALSRLADQERRHSQALEALQORLQGAEAAE  
LQLAELERNVALREAEVEDMASRIQEFEAALKAKEATIAERNLEIDALNQRKA  
AHS AELEAVLLALARIRRALEQQPLAAGAAPPELQWLRAQCARLSRQLQVLH  
QRFLRCQVELDRRQARRATAHTRVPGAHPQPRMDGGAQAQVTGDVEASHDA  
ALEPVPDPQGDLPVLVTLKDAPLCKQEGVMSVLTVCQRQLQSELLLVKNE  
40 MRLSLEDGGKGKEKVLEDCQLPKVDLVAQVKQLQEKLNRLLYSMTFQNVDA  
ADTKSLWPMASAHLESSWSDDSCDGEEPDISP HIDTCDANTATGGVTDVIKN  
QAIDACDANTTPGGVTDVIKNWDSLIPDEMPDSPIQEKSECQDRSLSSPTSVLG  
GSRHQSHTA EAGPRKSPVGMLDLSSWSSPEVLRKDWTLPEWPSLPVTPHSGA  
LSLCSADTSLGDRADTSLPQTQGPGLLCSPGVSAAALALQWAESPADDHHV  
45 QRTAVEKDVEDFITTSFDSQETLSSPPPGLEGKADRSEKSDGSGFGARLSPGSG  
GPEAQTAGPVTPASISGRFQPLPEAMKEKEVRPKHV KALLQMVRDESHQILAL  
SEGLAPPSGEPHPPRKEDEIQDISLHGGKTQEVPTACPDWRGDLLQVVQEAFE  
KEQEMQGVELQPRLSGSDLGGHSSLLERLEKIIREQGD LQEKSLHLRLPDRSS  
LLSEIQALRAQLRMTHLQNQEKLQHLRTALTS AEARGSQQEHLRRQVELLA  
50 YKVEQEKCIAGDLQKTLSEEQEKANSVQKLLAAEQTVVRDLKSDLCESRQKS

EQLSRSLCEVQQEVLQLRSMMLSSKENELKAALQELESEQGKGRALQSQLEEE  
QLRHQLQRESQSAKALEELRASLETQRAQSSRLCVALKHEQTAKDNLQKELRIE  
HSRCEALLAQERSQLSELQKDLAAEKSRTEELSEALRHERLLTEQLSQRTEA  
CVHQDTQAHHALLQKLKEEKSRVVDLQAMLEKVQQQALHSQQQLEAEAQK  
5 HCEALRREKEVSATLKSTVEALHTQKRELRCSLEREREKPAWLQAELEQSHPR  
LKEQEGRKAARRSAEARQSPAAAEQWRKWQRDKEKLRELELQRQRDLHKIK  
QLQQTVRDLESKDEVPGSRLHLGSARRAAGSDADHLREQQRELEAMRQRL  
SAARLLTSFTSQAVDRTVNDWTSSNEKAVMSLLHTLEELKSDLSRPTSSQKKM  
AAELQFQFVDVLLKDNVSLTKALSTVTQEKLELSRAVSKLEKLLKHHLQKGC  
10 SPSRSERSAWKPDETAPQSSLRRPDGRLPPAASEEAHTSNVKMEKLYLHYLR  
AESFRKALIYQKKYLLLLIGGFQDSEQETLSMIAHLGVFPSKAERKITSRPFTRF  
RTAVRVVIAILRLRFLVKKWQEVDRKGALAQGKAPRPGPRARQPQSPPTRES  
PPTRDVPSGHTRDPARGRRLAAAASPHSGGRATPSPNSRLERSLTASQDPEHSL  
TEYIHHLEVIQQRLGGVLPDSTSKKSCHPMIKQ  
15 -COOH

Figure 44- Full-length Amino Acid Sequence (PCNT2) (SEQ ID NO: 101)

NH<sub>2</sub>-MADNEKLDNQRLKNFKNKGRDLETMRRQRNEVVVELRKNKRDEHLLK  
RRNVPHEDICEDSDIDGDYRVQNTSLEAIVQNASSDNQGIQLSAVQAARKLLS  
SDRNPPIDDLIKSGILPILVHCLERDDNPSLQFEAAWALTNIASGTSEQTQAVVQ  
SNAVPLFLRLLHSPHQNVCEQAVWALGNIIGDGPQCRDYVISLGVVKPLLSFIS  
5 PSIPITFLRNVTWVMVNLCRHKDPPPPMETIQEILPALCVLIHHTDVNILDVTV  
WALSYLTDAGNEQIQMVIDSGIVPHLVPLLSHQEVKVQTAALRAVGNIVTGTD  
EQTQVVLNCDALSHFPALLTHPKEKINKEAVWFLSNITAGNQQQVQAVIDANL  
VPMIIHLLDKGDFGTQKEAAWAISNLTISGRKDQVAYLIQQNVIPPCNLLTVK  
DAQVVQVVLVDGLSNILKMAEDEAETIGNLIEECGGLEKIEQLQNHENEDIYKL  
10 AYEIIDQFFSSDDIDEDPSLVPEAIQGGTFGFNSSANVPTEGFQF  
-COOH

Figure 45- Full-length Amino Acid Sequence (KPNA4) (SEQ ID NO: 102)

NH<sub>2</sub>-MAFLDNPTIILAHIRQSHVTSDDTGMCENVLIDHDVDLEKIHPPSMPGDS  
GSEIQGSNGETQGYVYAQSVDITSSWDFGIRRRSNTAQRLELRKERQNQIKC  
KNIQWKERNKQSAQELKSLFEKKSLKEKPPISGKQSILSVRLEQCPLQLNNPF  
NEYSKFDGKGHVGTATKKIDVYLPLHSSQDRLLPMTVVTMASARVQDLIGLI  
5 CWQYTSEGREPKLNDNV SAYCLHIAEDDGEVDTDFPPLDSNEPIHKFGFSTLA  
LVEKYSSPGLTSKESLFVRINAAHGFSLIQVDNTKVTMKEILLKAVKRRKGSQ  
KVSGSRADGVFEEDSQIDIATVQDMLSSHYSFKVSMIHRLRFTTDVQLGIS  
GDKVEIDPVTNQKASTKFWIKQKPISIDSDLLCACDLAEEKSPSHAIFKLTYLS  
NHDKHLYFESDAATVNEIVLKVNYILESRASTARADYFAQKQRKLNRRTSFS  
10 FQKEKKSGQQ  
-COOH

Figure 46- Full-length Amino Acid Sequence (MAPKAP1) (SEQ ID NO: 103)

NH<sub>2</sub>-MIIYRDLISHDELFSDIYKIREIADGLCLEVEGKMVSRTEGAIDDSLIGGNA  
SAEGPEGEGTESTVVTGV<sup>5</sup>VDIVMNHHLQETSFTKEAYKKYIKDYMKSLKGKLE  
EQKPERVKPFMTGAAEQIKHILANFN<sup>10</sup>NYQFFIGENMNPDGMVALLDYREDGV  
TPFMIFFKDGLEMEKC  
-COOH

Figure 47- Full-length Amino Acid Sequence (mTPT1) (SEQ ID NO: 104)

NH<sub>2</sub>-QSRSRFQLNLDKTIESCKAQLGINEISEDVYTAVEHSDSEDSEKSESSDRX  
YVSDEEQKPKNEPEDPEDKEGSRVDKEAPAIKRKPKPTNQVEVKEEAKSNSPV  
SEKPDPTPAKDKASPEPEKDFVEKAKPSPHPTKDKLKGKDETDSPTVHLGLDS  
DSESELVIDLGEDPSGREGRKNKKDPKVPSPKQDAIGKPPPSSTSAGNQSPPET  
5 PVLTRSATQAPAAGVTVAAATTSTMSTVTVTAPATAVTGSPVKKQRPLLPKETV  
PAVQRVVWNASSKFQTSSQKWHMQKIQRQQQQQQQQQQSQQQSQQQQPQS  
SQGTRYQTRQAVKAVQQKEVTQSPSTSTITLVTSTQPAALVSSSGSASTLASAI  
NADLPIATASADVAADIAKYTSKMMDAIKGTMTETIYNDLSKNTTGSTIAEIRRL  
RIEIEKLQWLHQQELAEMKHNLELTMAEMRQSLEQERDRLIAEVKKQLELEK  
10 QQAVDETKKKQWCANCKKEAIFYCCWNTSYCDYPCQQAHWPEHMKSTQS  
ATAPQQEADAEASTETGNKSSQGNSSNTQSAPSEPASAPKEKEAPAEKSKDSS  
NSTLDLSGSRETPSSMLLGSNQSSVSKRCDKQPAYTPTTTDHQPHPNYPAQKY  
HSRSSKAGLWSSSEEKRASSRSEHSGGTSTKNLMPKESRESRLDAFWD  
-COOH  
15

Figure 48- Partial Amino Acid Sequence (mAK014397(679)) (SEQ ID NO: 105)

NH<sub>2</sub>-MEAPGEGPCSESQVIPVLEEDPVDYGCEMQLLQDGAQLQLQLQPEEFVA  
IADYTATDETQLSFLRGEKILILRQTTADWWGERAGCCGYIPANHLGKQLEE  
YDPEDTWQDEEYFDSYGTLKLHLEMLADQPRTTKYHSVILQNKESLKDKVIL  
5 VEDVVLPEKVDVLVSEWMGTCLLFEFMIESILYARDTWLKGDGIIWPTTAALH  
LVPCSAEKDYHSKVLFWDNAYEFNLSALKSLAIKEFFSRPKSNHILKPEDCLSE  
PCTILQLDMRTVQVPDLETMRGELRFDIQKAGTLHGFTAWFSVYFQSLEEGQP  
QQVVSTGPLHPTTHWKQTLFMMDDPVPVHTGDVVHGFCCVTKKSGMEKAH  
10 VCLSELGCHVRTRSHVSTELETGSFRSGGDS  
-COOH

Figure 49- Full-length Amino Acid Sequence (mHRMT1L1) (SEQ ID NO: 106)

NH<sub>2</sub>-MATSGDCPRSESQGEEPAECSEAGLLQEGVQPEEFVAIADYAATDETQLS  
FLRGEKILILRQTTADWWGERAGCCGYIPANHVGKHVDEYDPEDTWQDEE  
YFGSYGTLKLHLEMLADQPRTTKYHSVILQNKESLTDKVILDVGCGTGIISLFC  
5 AHYARPRAVYAVEASEMAQHTGQLVLQNGFADIITVYQQKVEDVVLPEKVDV  
LVSEWMGTCLLKQQSSEGDASKDTTGVLDCQQT  
-COOH

Figure 50- Full-length Amino Acid Sequence (HRMT1L1(241)) (SEQ ID NO: 107)

NH<sub>2</sub>-RRGRSRETNEEPPPPTVQVQGGPGPQREEKQKTKMAKFVIRPATAADCSDI  
LRLIKELAKYEYMEEQVILTEKDLLEDGFGEHPFYHCLVAEVPKEHWTPEGHS  
IVGFAMYYFTYDPWIGKLLYLEDDFFVMSDYRGFGIGSEILKNLSQVAMRCRCS  
SMHFLVAEWNEPSINFYKRRGASDLSSEEGWRLFKIDKEYLLKMATEE  
5 -COOH

Figure 51- Partial Amino Acid Sequence (SAT(204)) (SEQ ID NO: 108)

NH<sub>2</sub>-FCELSSPAEMANVLCNRARLVSYLPGFCSLVKRVVNPKAFSTAGSSGSDE  
SHVAAAPPDICSRTVWPDETMGPFQDQRFQLPGNIGFDCHLNGTASQKKSL  
VHKTLPDVLAEPLSSERHEFVMAQYVNEFQGNDAPVEQEINSAETYFESARV  
ECAIQTCPPELLRKDFESLFPEVANGKLMILTVTQKTKNDMTVWSEEVEIEREV  
5 LLEKFINGAKEICYALRAEGYWADFIDPSSGLAFFGPYTNNTLFETDERYRHLG  
FSVDDLGCCKVIRHSLWGTHVVVGSIFTNATPD SHIMKKLSGN  
-COOH

Figure 52- Partial Amino Acid Sequence (BC023995(305)) (SEQ ID NO: 109)  
10

NH<sub>2</sub>-MTTQAPTFTQPLQSVVVLEGSTATFEAHISGFPVPEVSWFRDQVISTSTL  
PGVQISFSDGRAKLTPAVTKANSGRYSLKATNGSGQATSTAELLVKAETAPPN  
FVQRLQSM TVRQGSQVRLQVRVTGIPTPVVKFYRDGAEIQSSLD FQISQEGDL  
YSLLIAEAYPEDSGTYSVNATNSVGRATSTAELLVQGEEVPAKKT KTIVSTAQI  
5 SESRQTRIEKKIEAHFDARSIATVEMVIDGAAGQQLPHKTPPRIPPKPKSRSP TP  
PSIAAKAQLARQQSPSPIRHSPSPVRHVRAPTPSPVRSVSPAARISTSPIRSVRSP  
LLMRKTQASTVATGPEVPPPWKQEGYVASSSEAEMRETTLTSTQIRTEERWE  
GRYGVQEQTISGAAGAAASVSASASYAAEAVATGAKEVKQDADKSAAVATV  
VAAVDMARVREPVISAVEQTAQRTTTTAVHIQPAQEQRKEAEKTAVTKVVVA  
10 ADKAKEQELKSRTKEVITTKQEQMHVTHEQIRKETEKTFVPKVVISAAKAKE  
QETRISEEITKKQKQVTQEAIMKETRKTVVPKVIVATPKVKEQDLVSRGREGIT  
TKREQVQITQEKMRKEAEKTALSTIAVATAKAKEQETILRTRET MATRQEIQV  
THGKVDVGKKA EAVATVVAVDQARVREPREPGHLEESYAQQTTLEYGYKER  
ISAAKVAEPPQRPASEPHVVPKAVKPRVIQAPSETHIKTTDQKGMHISSQIKKTT  
15 DLTERLVHVDKRPRTASPHFTVSKISVPKTEHGYEASIAGSAIATLQKELSATS  
SAQKITKSVKAPTVPKSETRVRAEPTPLPQFPFADTPDTYKSEAGVEVKKEVG  
VSITGTTVREERFEVLHGREAKVTETARVPAPVEIPVTPPTLV SGLKNVTVIEGE  
SVTLECHISGYPSPTVTWYREDYQIESSIDFQITFQSGIARLMIREAFAEDSGRF  
TCSAVNEAGTVSTSCYLAVQVSEEFEKETTAVTEKFTTEEKRFVESRDV VMTD  
20 TSLTEEQAGPGEPAPYFITKPVVQKLVEGGSVVFGCQVGGNPKPHVYWKKS  
GVPLTTGYRYKVSYNKQTGECKLVISMTFADDAGEYTIVVRNKHGETSASAS  
LLEEADYELLMKSQQEMLYQTQVTA FVQEPKVGETAPGFVYSEYEKEYEKEQ  
ALIRKKMAKDTV VVRTYVEDQEFHISSFEERLIKEIEYRIIKTTLEELLEEDGEE  
KMAVDISESEAVESGFDLR IKNYRILEGMGVTFHCKMSGYPLPKIAWYKD GK  
25 RIKHGERYQMDFLQDGRASLRIPVVLPEDEGIYTAFASNIKGNAICSGKLYVEP  
AAPLGAPTYIPTLEPVSRIRSLSPRSVSRSPIRMSPARMSPARMSPARMS  
PGRRL EETDESQLERLYKPVFVLKPV SFKCLEGQTARFDLKVVGRPMPETF WF  
HDGQQIVNDYTHKVVIKEDGTQSLIIVPATPSDSGEWTVVAQNRAGRSSISVIL  
TVEAVEHQVKPMFVEKLKNVNIKEGSRLEMKVRATGNPNPDIVWLKNSDIIV  
30 PHKYPKIRIEGTKGEAALKIDSTVSQDSAWYTATAINKAGRDTTRCKVNVEVE  
FAEPEPERKLIIPRGTYRAKEIAAPELEPLHLRYGQEQWEEGDLYDKEKQKQPF  
FKKKLTSLRLKRFGPAHFECRLTPIGDPTMVVEWLHDGKPLEAANRLRMINEF  
GYCSLDYGVAYS RDSGIITCRATNKYGT DHTSATLIVKDEKSLVEESQLPEGRK  
GLQRIEELERMAHEGALTGVTTDQKEKQKPDIVLYPEPVRVLEGETARFCRV  
35 TGYPQPKVNWYLNGLIRKSKRFRVRYDGIHYLDIVDCKSYDTGEVKVTAEN  
PEGVIEHKVKLEIQQREDFRSVLRRAPEPRPEFHVHEPGKLQFEVQKVDRPVD  
TTETKEVVKLKRAERITHEKVPEESEELRSKFKRRTEEGYYEAITAVELKS RKK  
DESYEELLRKTKDELLHWTKELT EEEKKALAEEGKITIPTFKPKDIELSPSMEA  
PKIFERIQSQTVGQGS DAHFRVRVVGKPDPECEWYKNGVKIERSDRIYWYWP  
40 EDNVCELVIRDVTAEDSASIMVKAINIAGETSSHAFLLVQAKQLITFTQELQDV  
VAKEKDTMATFECETSEPFVKVKWYKDGMEVHEGDKYRMHSDRKVHFLSIL  
TIDTSDAEDYSCVLVEDENVKTTAKLIVEGAVVEFVKELQDIEVPESYSGELEC  
IVSPENIEGK WYHNDVELKSNGKYTITSRRGRQNLTVKDVTKEDQGEYSFVID  
GKKTTCKLKMKPRPIAILQGLSDQKVCEGDIVQLEVKVSLESVEGVWMKDG  
45 QEVQPSDRVHIVIDKQSHMLLIEDMTKEDAGNYSFTIPALGLSTSGRVSVYSV  
DVITPLKDVNVIEGTKAVLECKVSVPDVT SVKWYLNDEQIKPDDRVQAIVKG  
TKQRLVINRTHASDEGPYKLIVGRVETNCNLSVEKIKIIRGLRDLTCTETQNVV  
FEVELSHSGIDVLWNFKDKEIKPSSKYKIEAHGKIYKLTVLNMMK DDEGKYTF  
YAGENITSGKLT VAGGAISKPLTDQTVAESQEAVFECEVANPDSKGEWLRD GK  
50 HLPLTNNIRSESDGHKRRLLIAATKLDDIGEYTYKVATSKTS AKLKVEAVKIKK

TLKNLTVTETQDAVFTVELTHPNVKGQWIKNGVVLESNEKYAISVKGTIYSL  
RIKNCAIVDESUYGFRGLGASARLHVETVKIHKPKDVTALENATVAFEVS  
VSHDTVVPVKWFHKSVEIKPSDKHRLVSEKRVHKLMLQNISPSDAGEYTAVVG  
QLECKAKLFFVETLHITKTMKNIEVPETKTASFECEVSHFNVPSMWLKNNGVEIE  
5 MSEKFKIVVQGLHQLIIMNTSTEDSAEYTFVCGNDQVSATLTVTPIMITSMLK  
DINAEKDTITFEVTVNYEGISYKWLKNGVEIKSTDKCQMRTKKLTHSLNIRN  
VHFGDAADYTFVAGKATSTATLYVEARHIEFRKHIKDIKVLEKKRAMFECEVS  
EPDITVQWMKDDQELQITDRIKIQKEYVHRLIPSTRMSDAGKYTVVAGGN  
VSTAKLFEGRDVRIRSIIKEVQVIEKQRAVVEFEVNEDDVDAHUYKDGIEIN  
10 FQVQERHKYVVERRIHRMFISETRQSDAGEYTFVAGRNRSSVTLYVNAPEPPQ  
VLQELQPVTVQSGKPARFCAVISGRPPKISWYKEEQLLSTGFKCKFLHDGQE  
YTLLEIAFPEDAAYVTCEAKNDYGVATTSASLSVEVPEVVSPPQEMPVYPPAI  
ITPLQDVTVSEGQPARFQCRVSGTDLKVSWSKDKKIKPSRFFRMTQFEDTYQ  
LEIAEAYPEDEGTYTFVASNAVGGVSSTANLSLEVQALDRQSSGKDVRESTKS  
15 QAVADSSFTKEESKISQKEIKSFQSSSYEYEVQVFESVSQSSIHTAASVQDTQLC  
HTASLSQIAESTELSKECAKESTGEAPKIFLHLQDVTVKCGDTAQFLCVLKDDSD  
FIDVTWTHEGAKIEESERLKQSQNGNIQFLTICNVQLVDQGLYSCIVHNDGGER  
TTSAVLSVEGAPESILHERIEQEIEMEMKEFSSSFLSAEEGLHSAELQLSKINET  
LELSESPVYSTKFDSEKEGTGPIFIKEVSNADISMGDVATLSVTVIGIPKPKIQ  
20 WFFNGVLLTPSADYKFVFDGDDHSLILFTKLEDEGEYTCMASNDYGKTICSA  
YLKINSKGEGHKDTETESAVAKSLEKLGGPCPPHFLKELKPIRCAQGLPAIFEY  
TVVGEPAPTVTWFKENKQLCTSVYYTIIHNPNGSGTFIVNDPQREDSGLYICKA  
ENMLGESTCAAELLVLEDTDMTDPCKAKSTPEAPEDFPQTPLKGPAVEALD  
SEQEIAFTVKDTILKAALITEENQQLSYEHIAKANELSSQLPLGAQELQSILEQD  
25 KLTPESTREFLCINGSIHFQPLKEPSPNLQLQIVQSQKTFSKEGILMPEEPETQAV  
LSDTEKIFPSAMSIEQINSLTVEPLKTLAEPEGNYPOSSIEPPMHSYLTSAEEV  
LSPKEKTVSDTNREQRVTLQKQEAQSALILSLSLAEGHVESLQSPDVMISQVN  
YEPLVPSEHSCTEGGKILIESANPLENAGQDSAVRIEEGKSLRFPALALEEKQVLL  
KEEHSNDNVMPDQIIESKREPVAIKKVQEVQGRDLSKESLLSGIPEEQRLNL  
30 KIQICRALQA AVASEQPGLFSEWLRNIEKVEVEAVNITQEPRHIMCMYLVTSK  
SVTEEVTIIIEDVDPQMANLKMELRDALCAIHYEEIDILTAEGPRIQQGAKTSLQ  
EEMDSFSGSQKVEPITEPEVESKYLISTEEVSYFNVQSRVKYLDATPVTKGVAS  
AVVSDEKQDES LKPSEEKEESSSESGETEVATVKIQEAEGGLIKEDGPMIHTPLV  
DTVSEEGDIVHLTTSITNAKEVNWYFENKLVPSDEKFKCLQDQNTYTLVIDKV  
35 NTEDHQGEYVCEALNDSGKTATS AKLTVVKRAAPVIKRIEPLVALGHLAKF  
TCEIQSAPNVR FQWFKAGREIYESDKCSIRSSKYISSLEILRTQV VDCGEYTCK  
ASNEYGSVSCTATLTVTVPGGEKKVRKLLPERKPEPKEEVVLKSVLRKRPEEE  
EPKVEPKKLEKVKKPAVPEPPPPKPVEEVEVPTVTKRERKIPETKVPEIKPAIP  
LPAPEPKPKPEAEVKTIKPPPVEPEPTPIAAPVTVPVVGKKA EAKAPKEEAAKP  
40 KGPIKGVPKKTPSPIEAERRKLRPGSGGEKPPDEAPFTYQLKAVPLKFVKEIKDI  
ILTESEFVGSSAIFECVLPSTAITTWMKDGSNIRESPKHRFIADGKDRKLHIIDV  
QLSDAGEYTCVLR LGNKEKTSTAKLVVEELPVR FVKTL EEVTVVKGQPLYLS  
CELNKERDVVWRKDGKIVVEKPGRIVPGVIGLMRALTINDADDT DAGTYTVT  
VENANNLECSSCVKVVEVIRDWLVPKIRDQHV KPKGTAIFACDIAKDTPNIKW  
45 FKG YDEIPAEPNDKTEILRDGNHLYLKIKNAMPEDIAEYAVEIEGKRYPAKLT  
GEREVLLKPIEDVTIYEKESASFDAEISEADIPGQWKLKGELLRPSPTCEIKAE  
GGKRFLT LHKVKLDQAGEVLYQALNAITTAITLVKEIELDFAVPLKDVTVPERR  
QARFECVLTREANVIWSKGPDIKSSDKFDIADGKKHILVINDSQFDDEGVYT  
AEVEGKKTSARLFVTGIRLKFMSPLEDQTVKEGETATFVCELSHEKMHVWF  
50 KNDAKLHTSRTVLISSEGKTHKLEMKEVTLDDISQIKAQVKELSSTAQLK VLE

ADPYFTVKLHDKTAVEKDEITLKCEVSKDVPVKWFKDGEEIVPSPKYSIKADG  
LRRILKIKKADLKDKEGVCDGCTDKTKANVTVEARLIKVEKPLYGVEVFG  
ETAHFEIELSEPDVHGQWKLKGQPLTASPDCEIIEDGKKHILILHNCQLGMTGE  
VSFQAANAKSAANLKV KELPLIFITPLSDVKVFEKDEAKFECEVSREP KTRW  
5 LKGTQEITGDDRFELIKDGTKHSMVIKSAAFEDEAKYMFEAEDKHTSGKLIIE  
GIRLKFLTPLKDVTAKEKESAVFTVELSHDNIRVKWFKNDQRLHTTRSVSMQD  
EGKTHSITFKDLSIDDTSQIRVEAMGMSSEAKLTVLEGDPYFTGKLQDYTGVE  
KDEVILQCEISKADAPVKWFKDGKEIKPSKNAVIKADGKKRMLILKKALKSDI  
GQYTCDCGTDKTSGLDIEDREIKLVRPLHSVEVMETETARFETEISEDDIHAN  
10 WKLKGEALLQTPDCEIKEEGKIHSVLHNCRLDQTGGVDFQAANVKSSAHLR  
VKPRVIGLLRPLKDVTVTAGETATFDCELSYEDIPVEWYLGKKLEPSDKVVP  
RSEGVHTLTLRDVKLEDAGEVQLTAKDFKTHANLFFVKEPPVEFTKPLEDQT  
VEEGATAVLECEVSRENAKVWFKNGTEILKSKKYEIVADGRVRKLVIHDCTP  
EDIKTYTCDAKDFKTSCNLNVVPPHVEFLRPLTDLQVREKEMARFECELSREN  
15 AKVKWFKDGAEIKKGKKYDIISKGAVRILVINKCLLDDEAEYSCEVRTARTSG  
MLTVLEEEAVFTKNLANIEVSETDTIKLVCEVSKPGAEEVIWYKGDEEIIETGRY  
EILTEGRKRILVIQNAHLEDAGNYNCRLPSSRTDGKVKVHELAAEFISKPNLE  
ILEGEKAEFVCSISKESFPVQWKRDDKTLES GDKYDVIADGKKRVLVVKDATL  
QDMGTYYVMVGAARAAH LTVIEKLRIVVPLKDTRVKEQQEVVFNCEV NTE  
20 GAKAKWFRNEEAIFDSSKYIILQKDLVYTLRIRDAHLDDQANYNVSLTNHRGE  
NVKSAANLIVEEEDLRIVEPLKDIETMEKKSVTFWCKVNRLNVT LKWTNGE  
EVPFDNRVSYRVDKYKHMLTIKDCGFPDEGEYIVTAGQDKSVAELLIIEAPTEF  
VEHLEDQTVTEFDDAVFSCQLSREKANVKWYRNGREIKEGKKYKFEKDGSIH  
RLIHKDCRLDDECEYACGVEDRKSARLFFVEEIPVEIIRPPQDILEAPGADVFL  
25 AELNKDKVEVQWLRNNMVVVQGDKHQMMSEGKIHRLQICDIKPRDQGEYR  
FIAKDKEARAKLELAAAPKIKTADQDLVVDVGKPLTMVVPYDAYPKAEAEW  
FKENEPLSTKTIDTTAEQTSFRILEAKKGDKGRYKIVLQNKHGKAEGFINLKVI  
DVPGPVRNLEVTTETFDGEVSLAWEEPLTDGGSKIIGYVVERRDIKRKTWVLAT  
DRAESCEFTVTGLQKGGVEYLFVRVSARNRVGTGEPVETDNPVEARSKYDVP  
30 PPLNVTITDVNRFGVSLTWEPPEYDGGAEITNYVIELRDKTSIRWDTAMTVRA  
EDLSATVTDVVEGQEYSFRVRAQNRIGVGKPSAATPFVKVADPIERPSPPVNL  
SSDQTQSSVQLKWEPP LKDGGSPI LGYIIERCEEKDNWIRCNM KLVPELTYK  
VTGLEKG NKYLYRVSAENKAGVSDPSEILGPLTADDAFVEPTMDLSAFKDGLE  
VIVPNPITILVPSTGYPRPTATWCFGDKVLETGDRVKMKTLSAYAE LVISPSERS  
35 DKGIYTLKLENRVKTIISGEIDVNVIARPSAPKELKFGDITKDSVHLTWEPPDDD  
GGSPLTGYVVEKREVS RKTWTKVMDFTDLEFTVPDLVQGKEYL FKV CARN  
KCGPGEPAYVDEPVNMSTPATVPDPPE NVKWRDRTANSIFLTWDPPKNDGGS  
IKGYIVERCPRGSDKWVACGEPVAETKMEVTGLEEGK WYAYRVKALNRQGA  
SKPSRPTEEIQAVDTQEAP EIFLDVKLLAGLTVKAGTKIELPATVTGKPEPKITW  
40 TKADMILKQDKRITIENVPKKSTVTIVDSKRSDTGTYII EAVNVCGRATAVVEV  
NVLDKPGPPAAFDITDVTNESCLLTWNPPRDDGGSKITNYVVERRATDSEVW  
HKLSSTVKDTNFKATKLIPNKEYIFRVA AENMYGVGEPVQAS PITAKYQFDP  
GPTRLEPSDITKDAVTLTWCEPDDDGGSPITGYWVERLDPD TDK WVR CNM  
PVKDTTYRVKGLTNKKKYRFRVLAENLAGPGKPSKSTEPILIKDPIDPPWPPGK  
45 PTVKDVGKTSVRLNWT KPEHDGGAKIESYVIEM LKTGTDEWVRVAEGVPTT  
QHLLPGLMEGQEYSFRVRAVNKAGESEPSDPVLCREKLYPPSPPRWLEVIN  
ITKNTADLKWTVPEKDGGSPITNYIVEKRDVRRKGWQTVDTTVKDTKCTVTP  
LTEGSLYVFRVAAENAIGQSDYTEIEDSVLAKDTFTTPGPPYALAVDVTKRHV  
DLKWEPPKNDGGRPIQRYVIEKKERLGTRWVKAGKTAGPDCNFRVTDVIEGT  
50 EVQFQVRAENEAGVGHPSEPT EILSIEDPTSPSPPLDLHVTDAGRKHIAIAWK

PPEKNGGSPIIGYHVEMCPVGTEKWMRVNSRPIKDLKFKVEEGVVPDKEYVL  
RVRAVNAIGVSEPSEISENVVAKDPDCKPTIDLETHDIIVIEGEKLSIPVPFRAVP  
VPTVSWHKDGKEVKASDRLTMKNDHISAHLEVPKSVRADAGIYTITLENKLG  
SATASINVKVIGLPGPCKDIKASDITKSSCKLTWEPPEFDGGTPILHYVLERREA  
5 GRRTYIPVMSGENKLSWTVKDLIPNGEYFFRVKAVNKVGGGEYIELKNPVIAQ  
DPKQPPDPPVDVEVHNPTAEAMTITWKPPLYDGGSKIMGYIIEKIAKGEERWK  
RCNEHLVPILTYTAKGLEEGKEYQFRVRAENAAGISEPSRATPPTKAVDPIDAP  
KVILRTSLEVVRGDEIALDASISGSPYPTITWIKDENVIVPEEIKKRAAPLVRRR  
KGEVQEEEPFVLPLTQRLSIDNSKKGESQLRVRDSLRLPDHGLYMIKVENDHGI  
10 AKAPCTVSVLDTPGPPINFVFEDIRKTSVLCKWEPPLDDGGSEIINYTLEKKDK  
TKPDSEWIVVTSTLRHCKYSVTKLIEGKEYLFRVRAENRFGPGPPCVSKPLVA  
KDPFGPPDAPDKPIVEDVTSNSMLVKWNEPKDNGSPILGYWLEKREVNSTHW  
SRVNXSLLNALKANVDGLLEGLTYVFRVCAENAAGPGKFSPSPDKTAHDPI  
PPGPPIPRVTDTSSTTIELEWEPPAFNGGGEIVGYFVDKQLVGTNEWRSCTEKM  
15 IKVRQYTVKEIREGADYKLRSVAVNAAGEGPPGETQPVTVAEPPQEPPELV  
SVKGGIQIMAGKTLRIPAVVTGRPVPKVTWKEEGELDKDRVVIDNVGKSEL  
IHKDALRKDHGRYVITATNSCGSKFAAARVEVFDVPGPVLDLKPVTNRKMCL  
LNWSDPEDDGGSEITGFIERKDAKMHTWRQPIETERSKCDITGLLEGQEYKFR  
VIAKNKFGCGPPVEIGPILAVDPLGPPTSPERLTYTERTKSTITLDWKEPRSNGG  
20 SPIQGYIIEKRRHDKPDFERNKRLCPTTSFLVENLDEHQMYEFRVKAVNEIGE  
SEPSLPLNVVIQDDEVPTTIKLRLSVRGDTIKVKAGEPVHIPADVTGLPMPKIE  
WSKNETVIEKPTDALQITKEEVSRSSEAKTELSIPKAVREDKGTYYTVTASNRLGS  
VFRNVHVEVYDRPSPRNLAVIDIKAESCYLTWDAPLDNGGSEITHYVIDKRD  
ASRKKAEWEEVTNTAVEKRYGIWKLIPNGQYEFVRVAVNKYGISDECKSDKV  
25 VIQDPYRLPGPPGPKVLARTKGSMLVSWTPPLDNGGSPITGYWLEKREEGSP  
YWSRVSRAPIKTVGLKGVEFNVPRLLLEGVKYQFRAMAINAAGIGPPSEPSDPE  
VAGDPIFPPGPPSCPEVKDKTKSSISLGWKPPAKDGGSPIKGYIVEMQEEGTTD  
WKRVNEPDKLITTCECVVPNLKLRLKYRFRVKAVNEAGESEPSDTTGEIPATDI  
QEEPEVFDIGAQDCLVCKAGSQIRIPAVIKGRPTPKSSWEFDGKAKKAMKDG  
30 VHDIPEDAQLETAENSSVIIIPECKRSHTGKYSITAKNKAGQKTANCRVKVMD  
VPGPPKDLKVSIDITRGSCRLSWKMPDDDGGDRIKGYVIEKRTIDGKAWTKVN  
PDCGSTTFVVPDLLSEQQYFFRVRAENRFGIGPPVETIQRTTARDPIYPPDPPIKL  
KIGLITKNTVHLSWKPPKNDGGSPVTHYIVECLAWDPTGTTKEAWRQCNKRD  
VEELQFTVEDLVEGGEYEFVRVKAVNAAGVSKPSATVGPCDCQRPDMPPSIDLK  
35 EFMEVEEGTNVNIVAKIKGVFPPTLTWFKAPPKKPDNKEPVLYDTHVNKLVV  
DDTCTLVIPQSRSDTGLYTITAVNNLGTASKEMRLNVLGRPGLVPIKFESV  
SADQMTLSWFPPKDDGGSKITNYVIEKREANRKTWVHVSSEPKECTYTIPKLL  
EGHEYVFRIMAQNKYGIGEPLDSEPETARNLFSVPGAPDKPTVSSVTRNSMTV  
NWEEPEYDGGSPVTGYWLEMKDTTSKRWKRVNRDPIKAMTLGVSYKVVTGLI  
40 EGSDYQFRVYAINAAGVGASLPSDPATARDPIAPPGPPFPKVTDWTKSSADLE  
WSPPLKDGGSKVTGYIVEYKEEGKEEWEKGKDKEVRGKLVVTGLKEGAFY  
KFRVSAVNIAGIGEPGEVTDVIEMKDRLVSPDLQLDASVRDRIVVHAGGVIRII  
AYVSGKPPPTVTWNMNERLTPQEATITTAISSSMVIKNCQRSHQGVYSLAK  
NEAGERKKTIIVDVLDPGPVGTPLAHNLTNESCKLTWFSPEDDGGSPITNY  
45 VIEKRESDRRAWTPVTYTVTRQNATVQGLIQGKAYFFRIAAENSIGMGPFVET  
SEALVIREPITVPERPEDLEVKEVTNTVTLTNWPPKYDGGSEIINYVLESRLIG  
TEKFHKVTNDNLLSRKYTVKGLKEGDTYEYRVSANVIVGQKPSFCTKPITCK  
DELAPPTLHLDFRDKLTIRVGEAFALTGRYSGKPKPKVSWFKDEADVLEDDRT  
HIKTTPATLALEKIKAKRSDSGKYCVVVENSTGSRKGFCQVNVVDRPGPPVGP  
50 VSFDEVTKDYMVISWKPLDDGGSKITNYIIEKKEVGKDVWMPVTSASAKTT

CKVSKLLEGKDYIFRIHAENLYGISDPLVSDSMKAKDRFRVPDAPDQPIVTEVT  
KDSALVTWNKPHDGGK PITNYILEKRETM SKRWARVTKDPIHPYTKFRVPDLL  
EGCQYEFVSAENEIGIGDPSPPSKPVFAKDPIAKSPPPVNPEAIDTTCNSVDLT  
WQPPRHDGGSKILGYIVEYQKVGDEEWRRANHTPESCPETKYKVTGLRDGQ  
5 TYKFRVLAVNAAGESDPAHVPEPVLVKDRLEPPELILDANMAREQH IKV GDTL  
RLSAIIKGVFPFKVTWK KEDRDAPTKARIDVTPVGS KLEIRNAAHEDGGIYSLT  
VENPAGSKTVSVKVLVLDKPGPPRDLEVSEIRK DSCYLTWKEPLDDGGSVITN  
YVVERRDVASAQWSPLSATS KKKSHFAKHLNEGNQYLFRVAAENQYGRGPFV  
ETPKPIKALDPLHPPGPPKDLHHVDVDKTEVSLVWNKPDRDGGSPITGYLVEY  
10 QEEGTQDWIKFKTVTNLECVVTGLQQGKTYRFRVKAENIVGLGLPDTTIPIEC  
QEKLVPPSVELDVKLIEGLVVKAGTTVRFP AIIRGVVPVPTAKWTTD GSEIKTDE  
HYTVETDNFSSVLTIKNCLRRDTGEYQITVSNAAGSKTVAVHLTVLDVPGPPT  
GPINILDVTP EHMTISWOPPKDDGGSPVINYIVEKQDTRKDTWGVVSSGSSKT  
KLKIPHLQKGCEYVFRVRAENKIGVGPPLDSTPTVAKHKFSPPSPPGKPVVTDI  
15 TENAATVSWTLPKSDGGSPITGYMERREVTGKWVRVNKTPIADLKFRVTGL  
YEGNTYEFVFAENLAGLSKSPSSDPIACRPIKPPGPPINPKLKDKSRETADL  
VWTKPLSDGGSPILGYVVECQKPGTAQWNRINKDELIRQCAFRVPGLIEGNEY  
RFRIKAANIVGEGEPRELAESVIAKDILHPPEVELDVTCDVITVRVGQTIRILA  
RVKGRPEPDITWKEGKVLVREKRVDLIQDLPRVELOIKEAVRADHGKYIISAK  
20 NSSGHAQGS AIVNVLD RPGPCQNLKVTNVTKENCTISWENPLDNGGSEITNFI  
VEYRKPNQKGWSIVASDVTKRLIKANLLANNEYFRVCAENKVGVGPTIETK  
TPILAINPIDRPGEPENLHIADKGKTFVYLKWRRPDYDGGSPNLSYHVERRLK  
GSDDWERVHKGSIKETHYMDRCVENQIYEFVQTKNEGGE SDWVKTEEVV  
VKEDLQKPVLDLKLSGVLT VKAGDTIRLEAGVRGKPFPEVAWTKDKDATDLT  
25 RSPRVKIDTRADSSKFSLTAKRSDGGKYVVTATNTAGSFVAYATVNVLDKPG  
PVRNLKIVDVSSDRCTVCWDPPEDDGGCEIQNYILEKCETKRMVWSTYSATV  
LTPGTTVTRLIEGNEYIFRVRAENKIGTGPPTESKPVIAKTKYDKPGRPDPEVT  
KVSKEEMTVVWNPPEYDGGKSITGYFLEKKEKHSTRWVPVNKSAIPERRMK  
VQNLLPDHEYQFRVKAENEIGIGEPSLPSRPVVAKDPIEPPGPPTNFRVVDTTK  
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20 FERINTSAFELNEREIVSYVHQVCEALQFLHSHNIGHFDIRPENIYQTRRSSTIK  
IIEFGQARQLKPGDNFRLFTAPEYYAPEVHQHDVVSTATDMWSLGLTVYVLL  
SGINPFLAETNQIIENIMNAEYTFDEEAFKEISIEAMDFVDRLLVKERKSRMT  
ASEALQHPWLKQKIERVSTKVIRTLKHRRYYHTLIKKDLNMVVSAAARISCGG  
AIRSQKGVSVAKVKVASIEIGPVSGQIMHAVGEEGGHVKYVCKIENYDQSTQV  
25 TWYFGVRQLENSEKYEITYEDGVAILYVKDITKLDDGTYRCKVVNDYGEDSS  
YAEFVKGVREVDYCRRTMKKIKRRTDTMRLLERPPEFTLPLYNKTAIVG  
ENVRFGVTITVHPEPHVTWYKSGQKIKPGDNDKKYTFESDKGLYQLTINSVTT  
DDDAEYTVVARNKYGEDSCKAKLTVTLHPPPTDSTLRPMFKRLLANAECQEG  
QSVCFEIRVSGIPPPTLKWEKDGQPLSLGPNIEIIHEGLDYALHIRDTLPEDTG  
30 YYRVATNTAGSTSCQAHQLQVERLRYKKQEFKSKEEHERHVQKQIDKTLRMA  
EILSGTESVPLTQVAKEALREAAVLYKPAVSTKTVKGEFRLEIEEKKEERKLRM  
PYDVPEPRKYKQTTIEEDQRIKQFVPMSDMKWYKKIRDQYEMPGKLDREVQ  
KRPKRIRLSRWEQFYVMPLPRITDQYRPKWRIPKLSQDDLEIVRPARRRTPSPD  
YDFYRPRRRSLGDISDEELLPIDDYLAMKRTEEERLRLEEELELGFASPPS  
35 RSPPHFELSSRLYSSPQAHVKVEETRKDFRYSTYHIPTKAEASTSYAELRERHA  
QAAYRQPKQRQRIMAEREDEELLRPVTTTQHLSEYKSELDFMSKEEKSRKKS  
RRQREVTEITEIEEYEISKHAQRESSSSASRLLRRRRSLSPTYIELMRPVSELIR  
SRPQPAEEYEDDTERRSPTPERTRPRSPSPVSSERSLSRFERSARFDIFSRYESMK  
AALKTQKTSEKYEVLSSQPFTLDHAPRITLRMRSHRVPCGQNTRFILNVQSK  
40 PTAEVK WYHNGVELQESSKIHYTNTSGVLTLEILDCHTDDSGTYRAVCTNYK  
GEASDYATLDVTGGDYTTYASQRRDEEVPRSVFPELTRTEAYAVSSFKKTSEM  
EASSSVREVKSQMTETRESLSSYEHSASAEMKSAALEEKSLEEKSTTRKIKITTL  
AARILTKPRSMTVYEGESARFSCD TDGEPVPTVTWLRKGQVLSTSARHQVTT  
TKYKSTFEISSVQASDEGNYSVVVENSEGKQAEFTLTIQKARVTEKAVTSPPR  
45 VKSPEPRVKSPEAVKSPKRVKSPEPSHPKAVSPTETKPTPTKQVQHLVPSAPPKI  
TQFLKAEASKEIAKLTCVVESSVLRAKEVTWYKDGKKLKENGHFQFHYSAD  
GTIELKINNLTESDQGEYVCEISGEGGTSKTNLQFMGQAFKSIHEKVSKISETK  
KSDQKTTESTVTRKTEPKAPEPISSKPVIVTGLQD TT VSSDSVAKFAVKATGEP  
RPTAIWTKDGKAITQGGKYKLSEDKGGFFLEIHKTDTS DSGLYTCTVKNSAGS  
50 VSSSCKLTIAIKDTEAQKVSTQKTSEITPQKKAVVQEEISQKALRSEEIKMSEA

KSQEK LALKEEASKVLISEEVKKSAATSLEKSIVHEEITKTSQASEEVRTHAEIK  
AFSTQMSINEGQRLVLKANIAGATDVKWVLNGVELTNSEEYRYGVSGSDQTL  
TIKQASHRDEGILTCISKTKEGIVKCQYDLTSLKELSDAPAFISQPRSQNINEGQ  
NVLFTCEISGEPSPEIEWFKNNLPISISSNVSISRNRNVYSLEIRNASVSDSGKYTI  
5 KAKNFRGQCSATASLMVLPLVEEPSREVVLRTSGDTSLQGSFSSQSVQMSASK  
QEASFSSSFSSSSASSMTEMKFASMSAQSMSSMQESFVEMSSSSFMGISNMTQL  
ESSTSKMLKAGIRGIPPKIEALPSDISIDEGKVLTVACAFTGEPTPEVTWSCGGR  
KIHSQEQGRFHIENTDDLTTLIIMDVQKQDGGLYTSLGNEFGSDSATVNIHRS  
I  
10 -COOH

Figure 53- Full-length Amino Acid Sequence (TTN) (SEQ ID NO: 110)

15

5'-GCTGCTGTGCTTGGAGAAGCAGATGATGGGAATCTGGACTTGGACATGA  
AGAGTGGCCTAGAAAACACTGCTGCCTTAGATAATCAGCCAAAGGGCGCTT  
TGAAGAAGCTGATTTATGCAGCTAAGTTAAATGCTTCTTTAAAAGCCTTGG  
AAGGAGAACGAAATCAAGTTTACACTCAGTTATCTGAAGTGGATCAAGTAA  
5 AAGAAGACCTTACAGAGCATATCAAAAGTCTTGAGTCTAAACAAGCATCTT  
TGCAGTCAGAAAAGACAGAGTTTGAAAGTGAGAGCCAGAACTTCAGCA  
GAAACTGAAAGTGATAACCGAGCTGTACCAAGAAAATGAAATGAACTTC  
ACAGGAAATTAACAGTAGAAGAAAATTACCGATTAGAGAAAGAAGAAAAA  
CTTTCCAAAGTAGATGAGAAAATCAGCCATGCGACCGAGGAGCTGGAGAC  
10 CTGCAGGCAGCGTGCCAAGGATCTTGAAGAAGAG-3'

Figure 54- Partial cDNA Nucleotide Sequence Encoding the Amino Acid Sequence of  
SEQ ID NO: 57 (SEQ ID NO: 111) (486 nucleotides in total)

5'-GGAATCATGCATCGGACTACACGGATCAAAATCACAGAGCTGAACCCCC  
 ACCTCATGTGTGCCCTCTGCGGGGGGTACTTCATCGACGCCACCACTATCGT  
 GGAGTGCCTGCATTCTTCTGCAAAACCTGCATCGTGCGCTACCTGGAGAC  
 CAACAAATACTGCCCCATGTGTGACGTGCAGGTCCATAAAACCCGGCCGCT  
 5 GCTGAGCATCAGGTCTGACAAAACACTTCAAGACATTGTCTACAAATTGGT  
 CCCTGGGCTTTTTAAAGATGAGATGAAACGGCGGCGGGATTCTATGCAGC  
 GTACCCCCTGACGGAGGTCCCCAACGGCTCCAATGAGGACCGCGGCGAGG  
 TCTTGAGCAGGAGAAGGGGGCTCTGAGTGATGATGAGATTGTCAGCCTCT  
 CCATCGAATTCTACGAAGGTGCCGGGGACCGGGACGAGAAGAAGGGCCCC  
 10 CTGGAGAATGGGGATGGGGACAAAGAGAAAACAGGGGTGCGCTTCCTGC  
 GATGCCCAGCAGCCATGACCGTCATGCATCTTGCCAAGTTTCTCCGCAACA  
 AGATGGATGTGCCCAGCAAGTACAAGGTGGAGGTTCTGTACGAGGACGAG  
 CCACTGAAGGAATACTACACCCTCATGGACATCGCCTACATCTACCCCTGGC  
 GGCGGAACGGGCCTCTCCCCCTCAAGTACCGTGTCCAGCCAGCCTGCAAG  
 15 CGGCTCACCCTAGCCACGGTGCCCAACCCCTCCGAGGGCACCAACACCAG  
 CGGGGCGTCCGAGTCCAGTGGGGCCACCACAGCTGCCAACGGGGGTAGCT  
 TGAAGTGCCTGCAGACACCATCCTCCACCAGCAGGGGGCGCAAGATGACT  
 GTCAACGGCGCTCCCGTGCCCCCTTAAGTTGA-3'

20 Figure 55- Partial cDNA Nucleotide Sequence Encoding the Amino Acid Sequence of  
 SEQ ID NO: 65 (SEQ ID NO: 112) (891 nucleotides in total)

5'-AGTCCGTACAGTCCCCGGGGCGGCTCCAATGTCATCCAGTGCTACCGCT  
GCGGAGACACCTGCAAAGGGGAGGTGGTCCGTGTCCACAACAACCACTTC  
CACATCCGATGCTTCACTTGTCAAGTATGTGGATGTGGCCTGGCCCAGTCG  
GGCTTCTTCTTCAAGAACCAGGAGTACATCTGCGCCCAGGACTACCAACAG  
5 CTTTATGGCACCCGCTGTGATAGCTGCCGGGACTTCATCACGGGTGAGGTC  
ATCTCTGCCCTGGGCCGTACCTACCGCCCTAAATGCTTCGTATGCAGCTTGT  
GCAGGAAGCCTTTCCCTATTGGAGATAAGGTGACCTTCAGTGGGAAAGAAT  
GTGTATGTCAGACGTGCTCCCAGTCAATGACCAGCAGCAAGCCGATCAAGA  
TCCGTGGACCAAGCCACTGTGCTGGGTGCAAAGAGGAGATTAAACATGGC  
10 CAGTCACTTCTGGCACTGGACAAGCAGTGGCACGTCAGCTGTTTCAAATGC  
CAGACCTGTAGCGTCATCCTCACTGGGGAATACATTAGCAAAGACGGTGTT  
CCATACTGCGAGTCTGACTACCACTCCCAGTTTGGCATCAAATGTGAGACT  
TGTGACCGGTACATCAGTGGCAGGGTCTTGGAGGCAGGAGGGAAACACTA  
CCACCCTACCTGTGCCAGATGTGTACGCTGCCACCAGATGTTCACTGAGGG  
15 GGAGGAGATGTATCTCACAGGTTCTGAGGTTTGGCACCCAATCTGCAAGCA  
GGCAGCCAGGGCAGAGAAGAAG-3'

Figure 56- Partial cDNA Nucleotide Sequence Encoding the Amino Acid Sequence of  
SEQ ID NO: 75 (SEQ ID NO: 113) (783 nucleotides in total)

5'-GCAACATCAGGTGACTGTCCCAGAAAGTGAATCGCAGGGAGAAGAGCCT  
GCTGAGTGCAGTGAGGCGGGTCTCCTGCAGGAGGGAGTACAGCCAGAGG  
AGTTTGTGGCCATCGCGGACTACGCTGCCACCGATGAGACCCAGCTCAGTT  
TTTTGAGAGGAGAAAAAATTCTTATCCTGAGACAAACCACTGCAGATTGGT  
5 GGTGGGGTGAGCGTGCGGGCTGCTGTGGGTACATTCGGGCAAACCTATGTGG  
GGAAGCACGTGGATGAGTACGACCCCGAGGACACGTGGCAGGATGAAGA  
GTACTTCGGCAGCTATGGAACCTCTGAAACTCCACTTGGAGATGTTGGCAGA  
CCAGCCACGAACAATAAATACCACAGTGTCATCCTGCAGAATAAAGAATC  
CCTGACGGATAAAGTCATCCTGGACGTGGGCTGTGGGACTGGGATCATCAG  
10 TCTCTTCTGTGCACACTATGCGCGGCCTAGAGCGGTGTACGCGGTGGAGGC  
CAGTGAGATGGCACAGCACACGGGGCAGCTGGTCCTGCAGAACGGCTTTG  
CTGACATCATCACCGTGTACCAGCAGAAGGTGGAGGATGTGGTGCTGCCCCG  
AGAAGGTGGACGTGCTGGTGTCTGAGTGGATGGGGACCTGCCTGCTGAAG  
CAGCAAAGTTCTGAGGGAGACGCAAGTAAAGATACCACAGGTGTCCTAGA  
15 TTGTCAACAGACCATTAA-3'

Figure 57- Partial cDNA Nucleotide Sequence Encoding the Amino Acid Sequence of  
SEQ ID NO: 82 (SEQ ID NO: 114) (723 nucleotides in total)

NH<sub>2</sub>-MTSPEGAQNKEIDCLSPEAQRLAEARLAAKRAARAEAREIRMKELERQQ  
KEIYQVQKKYYGLDTKWGDIEQWMEDSERYSRFRNTSASDEDERLSVGS  
RGSRLRTNGYDGDYCGSQSLSRSGRGLSCSNLGLPSSGLASKPLSTQNGSRAS  
MLDESSLYGARRGSACGSRAPSEYGSHLNSSSRASSRASSARASPVVEERPDK  
5 DFAEKGSRNMPSLSAATLASLGGTSSRRGSGDTSISMDTEASIREIKELNELKD  
QIQDVEGKYMQGLKEMKDSLAEVEEKYKKAMVSNAQLDNEKTNFMYQVD  
TLKDMLELEEQLAESQRQYEEKNEFEREKHAHSILQFQFAEVKEALRQREE  
MLEEIRQLQQKQAGFIREISDLQETIEWKDKKIGALERQKEFFDSIRSERDDL  
EETVKLKEELKKHGIILNSEIATNGETSDTVNDVGYQAPTKITKEELNALKSAG  
10 EGTLDVRLKKLIDERECLLEQIKKLKGQLEGRQKNNKDLLRAEDGILENGTD  
AHVMDLQRDANRQISDLKFKLAKSEQEITALEQNVIRLESQVTRYRSAENAE  
KIEDELKAEKRKLQRELRSALDKTEELEVSNHGLVKRLEKMKANRSALLSQ  
-COOH

15 Figure 58- Full-length Amino Acid Sequence (mLRRFIP1) (SEQ ID NO: 139)

NH<sub>2</sub>-MTSSMASYEQLVRQVEALKAENTHLRQELRDNSSHLSKLETETSGMKE  
VLKHLQGGKLEQEARVLVSSGQTEVLEQLKALQTDISSLYNLKFHAPALGPEPA  
ARTPEGSPVHGSGPSKDSFGELSRATIRLLEELDQERCFLLEIEKEEKEKLWY  
YSQLQGLSKRLDELPHVDTFMQMDLIRQQLEFEAQHIRSLMEERFGTSD  
5 VQRAQIRASRLQIDKELLEAQDRVQQTEPQALLAVKPVAVEEEQEA  
EDGTPQPGNSKVEVFWLLSMLATRDQEDTARTLLAMSSSPESC  
LPLLLQILHGTEAGSVGRAGIPGAPGAKDARMRANAALHNIVFSQPDQGLAR  
KEMRVLHVLEQIRAYCETCWDWLQARDSGTETPVPIEPQICQATCAVMKLSF  
DEEYRRAMNELGGLQAVAELLQVDYEMHKMTRDPLNLALRRYAGMTLTNLT  
10 FGDVANKATLCARRGCMEDIAVQLGSESEELHQVVSSILRNLSWRADINSK  
LREVGSMALMECVLRASKESTLKSVALWNLSAHSTENKAAICQVDGALG  
FLVSTLTYRCQGNLAVIESGGGILRNVSLLIATREDYRQVLRDHNC  
LTSHSLTIVSNACGTLWNLSARSPRDQELLWDLGAVGMLRNLVHSHKMIAM  
GSAAALRNLLAHRPAKYQAAAMAVSPGTCVPSLYVRKQRALEAELDRHLV  
15 HALGHLEKQSLPEAETTSKKPLPLRHLDDLGLVQDYASDSGCFDDDDAPSLAA  
AATTAEPASPAVMSMFLGGPFLQGQALARTPPARQGGLEAEKEAGGEAAVAA  
KAKAKLALAVARIDRLVEDISALHTSSDSSSLSSGDPGQEA  
RGTEGGRREAGSRAHPLRLKAAHTSLNSDSLNSGSTSDGYCTREHMT  
PCPLAALAEHRDDPVRGQTRPRRLDLPLSRAELPARDTAATDARV  
20 VPLLDGAAGAGVRPLVGPSTPGARKQAWIPADSLSKVPEKLVASPLPIASKV  
LQKLVAQDGPMSLSRCSLSSLSSTGHAVPSQAENLSDSSLEGLEEAGPGEAE  
LGRAWRASGSTSLPVSIAPQGRSRGLGVEDATPSSSSENCVQETPLVLSRCS  
SVSSLGSFESRSIASSIPSDPCSGLGSSTVSPSELPDSPGQTMPPSRSKTPPAPPG  
QPETSQFSLQWESYVKRFLDIADCRERCQPPSELDAGSVRFTVEKPDENFSCA  
25 SSLSALALHELYVQQDVELRLRPACPERAVGGGGHRRRDEAASRLDGPAPAG  
SRARSATDKELEALRECLGAAMPARLRKVASALVPGRRLPVVYMLVPAPAR  
GDDSGTDSAEGTPVNFSSAASLSDETQGPSRDKPAGPGDRQKPTGRAAPAR  
QTRSHRPAAGAGKSTEHTRGPCNRAGLELPLSRPQSARSNRDSSCQTRTRG  
DGALQSLCLTPTTEEAVYCFYDSDEEPPATAPPPRRASAIPRALKREKPA  
30 TPSRAAQPATLPVRAQPRRLIVDETPPCYSLTSSASSLSEPEAPEQ  
GSKQDSSPSRAEEELLQRCISLAMPRRRTQVPGSRRRKPRALRSDIRPTEITQK  
CQEEVAGSDPASDLDSVEWQAIQEGANSIVTWLHQAAAKASLEASSED  
LVSGVSAGSTLQPSKLRKGRKPAEAGGAWRPEKRGTTSTKINGSPRLPNGPE  
KAKGTQKMMAGESTMLRGRTVIYSAGPASRTQSKGISGPCTTPKKTGTSGTT  
35 QPETVTKAPSPEQQRSLHRPGKISELAALRHPPRSATPPARLAKTPSSSSSQT  
SPASQPLPRRSPLATPTGGPLPGPGSLVPKSPARALLAKQHKTKQKSPVRIPFM  
QRPARRVPPPLARPSPEPGSRGRAGAEGTPGARGSLGLVRMASARSSGSESS  
DRSGFRRQLTFIKESPGLLRRRRSELSSADSTASTSQAASPRRGRPALPAVFLCS  
SRCDELRVSPRQPLAAQRSPQAKPGLAPLAPRRTSSESPSRLPVRA  
40 KRYASLPHISVSRRSDSAVSVPTTQANATRRGSDGEARPLPRVAPPGTTWRRIK  
DEDVPHILRSTLPATALPLRVSSPEDSPAGTPQRKTSDAVVQTEDVATSKTNSST  
SPSLESRDPPQAPASGPVAPQGSVDGVPVLTKPPASAPFPHEGLSAVIAGFPTSR  
HGSPSRAARVPPFNYVPSPMAAATMASDSAVEKAPVSSPASLLE  
-COOH  
45

Figure 59- Full-length Amino Acid Sequence (mAPC2) (SEQ ID NO: 140)

NH<sub>2</sub>-MQKPSGLKPPGRGGKHSSPVGRPSVGSASSSVVASTSGSKEGSPLHKQAS  
 GPSSSGAAATVSEKPGPKAAEVGDDFLGHFVVGERVWVNGVKPGVVQYLGE  
 TQFAPGQWAGVVLDDPVGKNDGAVGAVRYFECPALQGIFTRPSKLTRQPTAE  
 GSGSDTHSVESLTAQNLSLHSGTATPPLTGRVIPLRESVLNSSVKTGNESGSNLS  
 5 DSGSVKRGDKDLHLGDRVLVGGTKTGVVRYVGETDFAKGEWCGVELDEPLG  
 KNDGAVAGTRYFQCPPKFGLFAPIHKVIRIGFPSTSPAKAKKTKRMAMGVSA  
 THSPSSSSISSVSSVASSVGGPASRSGLLTETSSRYARKISGTIALQEALKEKQQH  
 IEQLLAERDLERA EVAKATSHICEVEKEIALKKAQHEQYVAEAEKLQRARLL  
 VENVRKEKVDLSNQLEEERRKVEDLQFRVEEESITKGDLETQTQLEHARIGEL  
 10 EQSLLLEKAQAERLLRELADNRLTTVAEKSRVLQLEEELSLRRGEIEELQHCLL  
 QSGPPPADHPEAAETLRLRERLLSASKEHQDDSTLLQDKYEHMLKTYQTEVD  
 KLRAANEKYAQEVADLKAKVQQATTENMGLMDNWKSKLDSLSDHQKSLE  
 DLKATLNSGPGAQQKEIGELKALVEGIKMEHQLELGNLQAKHDLETAMHGKE  
 KEGLRQKLQEVQEELAGLQQHWREQLQEQASQHRLELQEAQDQCRDAQLRV  
 15 QELEGLDVEYRGQAQAIEFLKEQISLAEEKMLDYEMLQRAEAQSRQEAERLR  
 EKLLVAENRLQAAESLCSAQHSHVIESSDLSEETIRMKETVEGLQDKLNKRDK  
 EVTALTSQMDMLRAQVSVLENKCKSGEKKIDSLLKEKRRLEAELEAVSRKTH  
 DASGQLVHISQELLRKERSLNELRVLLLEANRHSPGPERDLSREVHKAEWRIK  
 EQKLKDDIRGLREKLTGLDKEKSLSEQRRLSLIDPASPELLKLQHQLVSTEDA  
 20 LRDALNQAQQVERLVEALRGCSDRQTISNSGSANGIHQPDKAHKQEDKH  
 -COOH

Figure 60- Full-length Amino Acid Sequence (mCYLN2(1047)) (SEQ ID NO: 141)

NH<sub>2</sub>-MMMVMQPEGLGAGEGPFSGGGGGEYMEQEEDWDRDLLLLDPAWEKQQ  
RKTFTAWCNSHLRKAGTQIENIEEDFRNGLKMLLLEVISGERLPRPDKGKMR  
FHKIANVNKALDFIASKGVKLVSIGAEIVDGNLKM TLGMIWTIILRF AIQDISV  
EETSAKEGLLLWCQRKTAPYRNVNVQN FHTSWKDGLALCALIHRHRPDLIDY  
5 AKLRKDDPIGNLNTAFEVAEKYLDIPKMLDAEDIVNTPKPDEKAIMTYVSCFY  
HAFAGAEQAETAANRICKVLAVNQEN EKLMEEYEKLASELLEWIRRTVPWLE  
NRVGEP SMSAMQRKLEDFRDYRRLHKPPRVQEK CQLEINFNTLQTKLRLSHR  
PAFMPSEGKLVSDIANAWRGLEQVEKGYEDWLLSEIRRLQRLQHLAEKFQQK  
ASLHEAWTRGKEEMLNQHDYESASLQEV RALLRRHEAFESDLAAHQDRVEHI  
10 AALAQELNELDYHEAASVNSRCQAICDQWDNLGTLTQKRRDALERMEKLLE  
TIDQLQLEFARRAAPFNNWLDGAIEDLQDVWLVHSVEETQSLLTAHEQFKATL  
PEADRERGAILGIQGEIQKICQTYGLR PKSGNPYITLSSQDINNKWDTVRKLVP  
SRDQTLQEELARQQVNERLRRQFAAQANAIGPW IQGKVEEVGRLAAGLAGSL  
EEQMAGLRQQEQNIINYKSNIDRLEGDHQL LQESLVFDNKHTVYSMEHIRVG  
15 WEQLLTSIARTINEVENQVLTRDAKGLS QEQLNEFRASFNHFDRKRNGMMEP  
DDFRACLISMGYDLGEVEFARIMTMVDPNAAGVVTFQAFIDFMTRETAETDT  
AEQVVASF KILAGDKNYITPEELRRELPAEQAEY CIRRM APYKGS GAPSGALD  
YVAFSSALYGESDL  
-COOH  
20

Figure 61- Full-length Amino Acid Sequence (mACTN3) (SEQ ID NO: 142)

NH<sub>2</sub>-MLETLRERLLSVQQDFTSGLKTLSDKSREAKVKGKPRTAPRLPKYSAGL  
ELLSRYEDAWAALHRRRAKECADAGELVDSEVVMLSAHWEKKRTSLNELQGGQ  
LQQLPALLQDLESLMASLAHLETSFEEVENHLLHLEDLCGQCELERHKQAQA  
QHLESYKKSKRKELEAFKAELDTHTQKALEMEHTQQLKKERQKFFEEAFQ  
5 QDMEQYLSTGYLQIAERREPMGSMSSMEVNVDVLEQMDLMDISDQEALDVF  
LNSGGEDNIVMSPGVEMESNPNQNEMSLQIPSPSESASQPPASPSACTDLDTAD  
APLIQSDEEEVQVDTALVTLHTDRKSTPGVSDDSDQCDSTQDI  
-COOH

10 Figure 62- Full-length Amino Acid Sequence (mDTNBP1) (SEQ ID NO: 143)

NH<sub>2</sub>-EKGIKLLQAQKLVQYLRECEDVMDWINDKEAIVTSEELGQDLEHVEVLQ  
KKFEEFQTDLAAHEERVNEVSQFAAKLIQEQHPHEELIKTKQDEVNAAWQRL  
KGLALQRQGKLFGAAEVQRFNRDVDETIGWIKKEQLMASDDFGRDLASVQ  
ALLRKHEGLERDLAALEDKVKALCAEADRLQQSHPLSASQIQGKR  
5 -COOH

Figure 63- Partial Amino Acid Sequence (mTAKEDA013) (SEQ ID NO: 123)

NH<sub>2</sub>-MVDREQLVQKARLAEQAERYDDMAAAMKNVTELNEPLSNEERNLLSV  
AYKNVVGARRSSWRVISSIEQKTSADGNEKKIEMVRAYREKIEKELEAVCQDV  
LSLLDNYLIKNCSETQYESKV FYLKMKG DYRYLA EVATGEKRATVVESFEK  
5 AYSEAHEISKEHMQPTHPIRLGLALNYSVFY YEIQNAPEQACHLAKTAFDDAI  
AELDTLNEDSYKDSTLIMQLLRDNLT LWTS DQQDDDG GEGNN  
-COOH

Figure 64- Full-length Amino Acid Sequence (m14-3-3g) (SEQ ID NO: 144)

NH<sub>2</sub>-MDKNELVQKAKLAEQAERYDDMAACMKSVTEQGAELSNEERNLLSVA  
YKNVVGARRSSWRVSSIEQKTEGAEEKQQMAREYREKIETELRDICNDVLS  
LLEKFLIPNASQPESKVFYLMKGDYYRYLAEVAAGDDKKGIVDQSQQAYQE  
5 AFEISKKEMQPTHPIRLGLALNFSVFYYEILNSPEKACSLAKTAFDEAIAELDTL  
SEESYKDSTLIMQLLRDNLTLWTSDTQGDEAEAGEGGEN  
-COOH

Figure 65- Full-length Amino Acid Sequence (m14-3-3zeta) (SEQ ID NO: 145)

NH<sub>2</sub>-MDKNELVQKAKLAEQAERYDDMAACMKSVTEQGAELSNEERNLLSVA  
YKNVVGARRSSWRVVSSIEQKTEGAEEKQQMAREYREKIETELRDICNDVLS  
LLEKFLIPNASQAESKVFYLMKMGDYYRYLAEVAAGDDKKGIVDQSQQAYQE  
5 AFEISKKEMQPTHPIRLGLALNFSVFYYEILNSPEKACSLAKTAFDEAIAELDTL  
SEESYKDSTLIMQLLRDNLTLWTSDTQGDEAEAGEGGEN  
-COOH

Figure 66- Full-length Amino Acid Sequence (14-3-3zeta) (SEQ ID NO: 146)

NH<sub>2</sub>-MTMDKSELVQKAKLAEQAERYDDMAAAMKAVTEQGHELSNEERNLLS  
VAYKNVVGARRSSWRVISSIEQKTERNEKKQQMGKEYREKIEAELQDICNDV  
LELLDKYLILNATQAESKV FYLKMKG DYFRYLSEVASGENKQTTVSNSQQAY  
5 QEAFEISKKEMQPTHPIRLGLALNFSVFYYEILNSPEKACSLAKTAFDEAIAEL  
DTLNEESYKDSTLIMQLLRDNLTLWTSENQGDEGDAGEGEN  
-COOH

Figure 67- Full-length Amino Acid Sequence (m14-3-3b) (SEQ ID NO: 147)

NH<sub>2</sub>-MEKTELIQKAKLAEQAERYDDMATCMKAVTEQGAELSNEERNLLSVAY  
KNVVGGRRSAWRVISSIEQKTDTSKKLQLIKDYREKVESELRSICTTVLELLD  
KYLIANATNPESKV FYLKMKG DYFRYLA EVACGDDRKQTIENSQGAYQEAFD  
5 ISKKEMQPTHPIRLGLALNFSVFYYEILNNPELACTLAKTAFDEAIAELDTLNE  
DSYKDSTLIMQLLRDNLTWTSDSAGEECDA AEGAEN  
-COOH

Figure 68- Full-length Amino Acid Sequence (m14-3-3theta) (SEQ ID NO: 148)

NH<sub>2</sub>-MEKTELIQKAKLAEQAERYDDMATCMKAVTEQGAELSNEERNLLSVAY  
KNVVGGRRSAWRVISSIEQKTDTSKKLQLIKDYREKVESELRSICTTVLELLD  
KYLIANATNPESKVFYLMKGDYFRYLAEVACGDDRKQTIDNSQGAYQEAFD  
ISKKEMQPTHPIRLGLALNFSVFYYEILNNPELACTLAKTAFDEAIAELDTLNE  
5 DSYKDSTLIMQLLRDNLTLWTSDSAGEECDAAEGAEN  
-COOH

Figure 69- Full-length Amino Acid Sequence (14-3-3theta) (SEQ ID NO: 149)

NH<sub>2</sub>-MELQRTSSVSGPLSPAYTGQVPYNYNQLEGRFKQLQDEREAVQKKTFTK  
 WVNSHLARVSCRITDLYTDLRDGRMLIKLLEVLSSGERLPKPTKGRMRIHCLEN  
 VDKALQFLKEQRVHLENMGSHDIVDGNHRLTLGLIWTIILRFQIQDISVETEDN  
 KEKKSAKDALLLWCQMKTAGYPNVNIHNFTTSWRDGMFNAIHKHRPDLI  
 5 DFDKLLKKSNAHYNLQNAFNLAEQHLGLTKLLDPEDISVDHPDEKSIITYVVTY  
 YHYFSKMKALAVEGKRIGKVLDNAIETEKMIKEYETLASDLLEWIEQTHIILNN  
 RKFANSLVGVQQQLQAFNTYRTVEKPPKFTEKGNLEVLLFAIQSKMRANNQK  
 VYMPREGKLISDINKAWERLEKAEHERELALRNELIRQEKLEQLARRFDRKA  
 AMRETWLSNQRLVSQDNFGFDLPVEAATKKHEAIETDIAAYEERVQAVVAV  
 10 ARELEAENYHDIKRITARKDNVIRLWEYLLELLRARRQRLEMNLGLQKIFQEM  
 LYIMDWMDEMKVLLLSQDYGKHLGLVEDLLQKHALVEADIAIQAERVGRVN  
 ASAQKFATDGEYKPCDPQVIRDRVAHMEFCYQELCQLAAERRARLEESRRL  
 WKFFWEMAEEEGWIREKEKILSSDDYGKDLTSVMRLLSKHRAFEDEMSGRS  
 GHFEQAIKEGEDMIAEEHFGSEKIRERIYIREQWANLEQLSAIRKKRLEEASLL  
 15 HQFQADADDIDAWMLDILKIVSSNDVGHDEYSTQSLVKKHKDVAEEITNCRP  
 TIDTLHEQASALPQAHAESPDVKGRLAGIEERCKEMAELTRLRKQALQDTLAL  
 YKMFSEADACELWIDEKEQWLNNMQIPEKLEDEVIQHRFESLEPEMNNQAS  
 RVAVVNQIARQLMHNGHPSEKEIRAQQDKLNTRWSQFRELVDKRDALLSAL  
 SIQNYHLECNETKSCIREKTKVIESTQDLGNDLAGVMALQCKLTGMERDLVAI  
 20 EAKLSDLQKEAEKLESEHPDQAQAILSRLAEISDVWEEMKTTLKNREASLGE  
 ASKLQQFLRDLDLDFQSWLSRTQTAIASEDMPNTLTEAEKLLTQHENIKNEIDN  
 YEEDYQKMRDMGEMVTQGQTDAAQYMFLRQRLQALDTGWNELHKMWENR  
 QNLLSQSHAYQQFLRDTKQAEAFNNQEYVLAHTEMPPTLEGAEAAIKKQED  
 FMTTMDANEEKINAVVETGRRLVSDGNINSRIQEKVDSIDDRHRKNREAASE  
 25 LLMRLKDNRDLDKFLQDCQELSLWINEKMLTAQDMSYDEARNLHSHKWLKH  
 QAFMAELASNKEWLDKIEKEGMQLISEKPETEAVVKEKLTGLHKMWEVLEST  
 TQTKAQRFLDANKAELFTQSCADLDKWLHGLESQIQSDDYGKDLTSVNILLK  
 KQQMLENQMEVRKKEIEELQSQAQALSQEGKSTDEVDSKRLTVQTKFMELL  
 EPLSERKHNLASKEIHQFNRDVEDEILWVGERMPLATSTDHGHNLQTVQLLI  
 30 KKNQTLQKEIQGHQPRIDDIFERSQNIITDSSSLNAEAIQRLADLKQLWGLLIE  
 ETEKRHRRLLEEAKKAQQYYFDAEAEAWMSEQELYMMSEEKAKDEQSAVS  
 MLKKHQILEQAVEDYAETVHQLSKTSRALVADSHPESEISMRSKVDKLYAG  
 LKDLAEERRGKLDERHRLFQLNREVDDLEQWIAEREVVAGSHELGDYEHV  
 TMLQERFREFARDTGNIGQERVDTVNNMADELINSGHSDAATIAEWKDGLNE  
 35 AWADLLELIDTRTQILAASYELHKFYHDAKEIFGRIQDKHKKLPEELGRDQNT  
 VETLQRMHTTTFEHDIALGTQVRQLQEDAARLQAAYAGDKADDIQKRENEV  
 LEAWKSLLDACEGRVRVRLVDTGDKFRFFSMVRDLMLWMEDVIRQIEAQEKPR  
 DVSSVELLMNNHQGIKAEIDARNDSTACIELGKSLLARKHYASEEIKEKLLQL  
 TEKRKEMIDKWEDRWEWLRLILEVHQFSRDASVAEAWLLGQEPYLSREIGQ  
 40 SVDEVEKLIKREHAEFEKSAATWDERFSALERLTTLELLEVRRQEEEEERKRRP  
 PSPDPNTKVSEEAESQQWDTSKGDQVSQNGLPAEQGSPPRVSYRSQTYQNYKN  
 FNSRRTASDHSWSGM  
 -COOH

45 Figure 70- Full-length Amino Acid Sequence (mSPNB2) (SEQ ID NO: 150)

NH<sub>2</sub>-DDAAVETAEAEAKEPAEADITELCRDMFSKMATYLTGELTATSEDYKLLN  
MNKLTSLKYLEMKDIINISRNKDLNQKYAGLQPYLDQINVIEEQVAALEQA  
AYKLDAYSKKLEAKYKKLEKR  
-COOH

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Figure 71- Partial Amino Acid Sequence (BC020494(124)) (SEQ ID NO: 132)

NH<sub>2</sub>-MSSSDEETLSERSCRSERSCRSERSYRSERSGSLSPCPPGDTLPWNLPLHE  
QKKRKSQDSVLDPAERAVVRVADERDRVQKKTFTKWVNKHLMKVRKHINDL  
YEDLRDGHNLISLLEVLSGIKLPREKGRMRFHRLQNVQIALDFLKQRQVKLVN  
IRNDDITDGNPKLTGLIWTIILHFQISDIYISGESGDMSAKEKLLWTKV  
5 YTGIKCTNFSSCWSDGKMFNALIHRYRPDLVDMERVQIQSNRENLEQAFEVAE  
RLGVTRLLDAEDVDVPSPDEKSVITYVSSYDAFPKVPEGGEGISATEVDSRW  
QEYQSRVDSLIPWIKQHTILMSDKTFPQNPVELKALYNQYIHFKETEILAKERE  
KGRIEELYKLEVVWIEFGRIKLPQGYHPNDVEEEWGKLIEMLEREKSRLPAVE  
RLELLLQIANKIQNGALNCEEKLTAKNTLQADAAHLESGQPVCESDVIMYI  
10 QECEGLIRQLQVDLQILRDENYYQLEELAFRVMRLQDELVTLRLECTNLYRKG  
HFTSLELVPPSTLTTHLKAEP LTKATHSSSTS WFRKPMTRAELGPSAPLKMKA  
ISDLCMNYCLWVEEMQMKLERA EWGNDLPSVELQLETQQHIHTSVEELGSSV  
KEARLYEGKMSQNFHTSYAETLGKLETQYCKLKETSSFRMRHLQSLHKFVSR  
ATAELIWLNEKEEEEELAYDWSNNSNISAKRNYFSELTMELEEKQDVFRSLQD  
15 TAE LLSLENHPAKQTVEAYSAAVQSQLQWMKQLCLCVEQHV KENTAYFQFFS  
DARELESFLRNLQDSIKRKYSCDHNTSLSRLEDLLQDSMDEKEQLIQSKSSVAS  
LVGRSKTIVQLKPRSPDHVLKNTISVKAVCDYRQIEITICKNDEC VLEDNSQRT  
KWKVISPTGNEAMVPSVCFLIPPNKDAIEMASRVEQSYQKVMALWHQLHV  
NTKSLISWNYLRKDLDLVQTNWLEKLRSSAPGECHQIMKNLQAHYEDFLQDS  
20 RDSVLF SVADRLRL EEEVEACKARFQHLMKSMENEDKEETVAKMYISELKNI  
RLRLEEYEQRVVKRIQSLASSRTDRDAWQDNALRIAEQEHTQEDLQQLRSDL  
DAVSMKCDSFLHQSPSSSVPTLRSELNLLVEKMDHVYGLSTVYLNKLKTVD  
VIVRSIQDAELLVKGYEIKLSQEEVVLADLSALEAHWSTLRHWLSDVKDKNS  
VFSVLDEEIAKAKVVAEQMSRLTPERNLDLERYQEKGSQLQERWHRVIAQLEI  
25 RQSELESIQEV LGDYRACHGTLIK WIEETTAQQEMMKPGQAEDSRVLSEQLSQ  
QTALFAEIERNQTKLDQCQKFSQQYSTIVKDYELQLMTYKAFVESQOKSPGK  
RRRMLSSSDAITQEFMDLRTRYTALVTLTQHVKYISDALRRLEEEEEKVVEE  
KQEHVEKV KELLGWVSTLARNTQGKATSSETKESTDIEKAILEQQVLSEELTT  
KKEQVSEAIKASQIFLAKHGHKLSEKEKKQISEQLNALNKAYHDLCDGSANQ  
30 LQQLSQSLAHQTEQKTLQKQNTCHQQLEDLCSWVGQAERALAGHQGRRT  
QQDLSALQKNQSDLKDLQDDIQNRATSFATVVKDIEGFMEENQTKLSPRELTA  
LREKLHQAKEQYEALQEETRVAQKELEEAVTSALQQETEKSKAAKELAENKK  
KIDALLDWVTSVGSSGGQLLTNLPGMEQLSGASLEKGALDTTDGYMGVNQA  
PEKLDKQCEMMKARHQELLSQQQNFILATQSAQAFLDQHGHNLTPEEQQML  
35 QQKLGE LKEQYSTSLAQSEAE LKQVQTLQDELQKFLQDHKEFESWLERSEKE  
LENMHKGGSSPETLP SLLKRQGSFSEDVISHKGDLRFVTISGQKVLDMENSFK  
EGKEPSEIGNLVKDKLKDATERYTALHSKCTRLGSHLNMMLLGQYHQFQNSAD  
SLQAWMQACEANVEKLLSDTAASDPGVLQEQLATTKQLQEELAEHQVPVEK  
LQKVARDIMEIEGEPAPDHRHVQETTD SILSHFQSLSYSLAERS SLLQKAIAQS  
40 QSVQDSLESLLQSIGEVEQNLEGKQVSSLSSGVIQEALATNMKLKQDIARQKS  
SLEATRE MVTRFMETADSTTA AVLQGKLAEVSQRFEQLCLQQQKESS LKKLL  
PQAEMFEHL SGKLQQFMENKSRMLASGNQPDQDITHFFQQIQELNLEMEDQQ  
ENLDTLEHLVTELSSCGFALDLCQH QDRVQNLRKDFTELQKTVKEREKDASS  
CQEQLDEF RKLVRTFQKWLKETEGSIPPTETSMSAKELEKQIEHLKSLDDWA  
45 SKGTLVEEINYKGTSLENLIMEITAPDSQGKTGSILPSVGSSVGSVNGYHTCKD  
LTEIQCDMSDVNLKYEKLGGLVHERQESLQAILNRMEEVHKEANSVLQWLES  
KEEVLKSMDAMSSPTKTETVKAQAESNKAFLAELEQNSPKIQKVKEALAGLL  
VTYPNSQEAENWKKIQEELNSRWERATEVTVARQRQLEESASHLACFQAES  
QLQPWLMEKELMMGVLGPLSIDPNMLNAQKQQVQFMLKEFEARRQQHEQL  
50 NEAAQGILTGP GDVSLSTSQVQKELQSINQKWVELTDKLNSSSQIDQAIVKST

QYQELLQDLSEKVRVAVGQRLSVQSAISTQPEAVKQQLEETSEIRSDLEQLDHE  
VKEAQTLCDELSVLIGEYLYKDELKKRLETVALPLQGLEDLAADRINRLQAAL  
ASTQQFQQMFDELRTWLDDKQSQQAKNCPISAKLERLQSQLQENEEFQKSLN  
QHSGSYEVIVAEGESLLLSVPPGEEKRTLQNLVELKNHWEELSKKTADRQSR  
5 LKDCMQKAQKYQWHVEDLVPWIEDCKAKMSELRVTLDPVQLESSLLRSKA  
MLNEVEKRRSLLEILNSAADILINSSEADEDGIRDEKAGINQNMDAVTEELQA  
KTGSLEEMTQRLREFQESFKNIEKKVEGAKHQLEIFDALGSQACSNKNLEKL  
AQQEVQLALEPQVDYLRNFTQGLVEDAPDGSDASQLLHQAQEVAAQEFLEV  
QRVNSGCVMMENKLEGIGQFHCRVREMFSQLADLDELDGMGAIGRDTDSL  
10 QSQIEDVRLFLNKIHLVLDIEASEAECRHMLEEEGTLDLLGLKRELEALNKQ  
CGKLTERGKARQEQLTLGRVEDFYRKLKGLNDATTAAEEAEALQWVVG  
EVEIINQQLADFKMFQKEQVDPLQMKLQQVNGLGQGLIQSAGKDCDVQGLE  
HDMEEINARWNTLNKKVAQRIALQLEALLHCGKFQDALEPLLSWLADTEELI  
ANQKPPSAEYKVVKAAQIQEQKLLQRLDDRKATVDMMLQAEGGRIAQSAELA  
15 DREKITGQLESLESRWTELLSKAAARQKQLEDILVLAKQFHETAEPISDFLSVT  
EKLANSEPVGTQTAKIQQQIIRHKALEEDIENHATDVHQAVKIGQSLSSLTSPA  
EQGVLSEKIDSLQARYSEIQDRCCRKAALLDQALSNAFLGEDEVEVLNWL  
EVEDKLSSVFKDFKQDVLHRQHADHLALNEEIVNRKKNVDQAIKNGQALL  
KQTTGEEVLLIQEKLDGIKTRYADITVTSSKALRTLEQARQLATKFQSTYEELT  
20 GWLREVEEELATSGGQSPTGEQIPQFQQRQKELKKEVMEHRLVLDTVNEVSR  
ALLELVPWRAREGLDKLVSDANEQYKLVSDTIGQRVDEIDAAIQRSSQYEQ  
ADAELAWVAETKRKLMAFGPIRLEQDQTTAQLQVQKAFSIDIIRHKDSMDEL  
SHRSEIFGTCGEEQKTVLQEKTESLIQQYEAISLLNSERYARLERAQVLVNQFW  
ETYEELSPWIEETRALIAQLPSAIDHEQLRQQQEEMRQLRESIAEHKPHIDKLL  
25 KIGPQLKELNPEEGEMVEEKYQKAENMYAQIKEEVRQALALDEAVSQSTQI  
TEFHDKIEPMLTLENLSSRLRMPPLIPAEVDKIRECISDNKSATVELEKLQPSF  
EALKRRGEELIGRSQGADKDLAAKEIQDKLDQMVFVWEDIKARAEEREIKFL  
DVLELAEKFWYDMAALLTTIKDTQDIVHDLESPGIDPSIIKQQVEAAETIKEET  
DGLHEELEFIRILGADLIFACGETEKPEVRKSIDEMNNAWENLNKTWKERLEK  
30 LEDAMQAAVQYQDTLQAMFDWLDNTVIKLCMPPVGTDLNTVKDQLNEMK  
EFKVEVYQQQIEMEKLNHQGELMLKKATDETDRIIREPLTELKHLWENLGE  
KIAHRQHKLEGALLALGQFQHALEELMSWLTHTEELLDAAQRPISGDPKVIEVE  
LAKHHVLKNDVLAHQATVETVKNAGNELLESSAGDDASSLRSRLEAMNQC  
WESVLQKTEEREQQQLQSTLQQAQGFHSEIEDFLELTRMESQLSASKPTGGLP  
35 ETAREQLDTHMELYSQKAKEETYNQLLDKGRLMLLSRDDSGSGSKTEQSV  
LLEQKWHVVSMEERKSKLEEALNLATEFQNSLQEFINWLTLAEQSLNIASP  
PSLILNTVLSQIEEHKVFANEVNAHRDQIIELDQTNQLKFLSQKQDVVLIK  
LVSVQSRWEKVVRQSIERGRSLDDARKRAKQFHEAWKKLIDWLEDAESHLD  
ELEISNDPDKIKLQLSKHKEFQKTLGGKQPVYDTTIRTGRALKEKTLLPEDTQ  
40 KLDNFLGEVRDKWDTVCGKSVERQHKLEEALLFSGQFMDALQALVDWLYK  
VEPQLAEDQPVHGDLVMDLMDAHKVFQKELGKRTGTQVQLKRSRGRELIE  
NSRDDTTWVKGQLQELSTRWDTVCKLSVSKQSRLEQALKQAEVFRDTHVHML  
LEWLSEAEQTLRFRGALPDDTEALQSLIDTHKEFMKKVEEKRVVNSAVAMG  
EVILAVCHPDCITTIKHWITIRARFEEVLTWAKQHQQRLETALSELVANAELLE  
45 ELLAWIQWAETTLIQRDQEPQIDRVKALIAEHQTFMEEMTRKQPDVDRVT  
KTYKRKNIEPTHAPFIEKSRSGGRKSLSQPTPPMPILSQSEAKNPRINQLSARW  
QQVWLLALERQRKLNDAALDRLEELKEFANFDVWRKKYMRWMNHKKSR  
VMDFFRRIDKDQDGKITRQEFIDGILASKFPTTKLEMTAVADIFDRDGDGYIDY  
YEFVAALHPNKDAYRPTTDADKIEDEVTRQVAQCKCAKRFQVEQIGENKYRF  
50 GDSQQLRLVRILRSTVMVRVGGGWMALDEFLVKNPDCRARGRTNIELREKFI

LPEGASQGMTPFRSRGRRSKPSSRAASPTRSSSSASQSNHSCTSMPPSPATPASG  
TKVIPSSGSKLKRPTPTFHSSRTSLAGDTSNSSSPASTGAKTNRADPKKSASRP  
GSRAGSRAGSRASSRRGSDASDFDLLETQSACSDTSESSAAGGQGNSRRGLN  
KPSKIPTMSKKTTTASPRTPGPKR

5 -COOH

Figure 72- Full-length Amino Acid Sequence (MACF1) (SEQ ID NO: 151)

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NH<sub>2</sub>-MSSDSEMAIFGEAAPFLRKSERERIEAQNKPFDKTSVVFVDPKESFVKA  
TVQSREGGKVTAKTEAGATVTVKDDQVFPMPNPPKYDKIEDMAMMTHLHEPA  
VLYNLKERYAAWMIYTYSGLFCVTVNPKWLPVYNAEVVTAYRGKKRQEAP  
PHIFSISDNAYQFMLTDRENQSILITGESGAGKTVNTRKVIQYFATIAVTGEKKK  
5 EEVTSQGMQGTLEDQIISANPLLEAFGNAKTVRNDNSSRFGKFIRIHFGTTGKL  
ASADIETYLLEKSRVTFQLKAERSYHIFYQIMSNKKPDLIEMLLITNPDYAF  
VSQGEITVPSIDDEELMATDSAIEILGFTSDERVSİYKLTGAVMHYGNMKFKQ  
KQREEQAEPDGTEVADKAAYLQNLNSADLLKALCYPRVKVGNEYVTKGQTV  
QQVYNAV GALAKAVYDKMFLWMVTRINQQLDTKQPRQYFIGVLDIAGFEIFD  
10 FNSLEQLCINFTNEKLQQFFNHMFVLEQEEYKKEGIEWTFIDFGMDLAACIE  
LIEKPMGIFSILEEECMFPKATDTSFKNKLYEQHLGKSNNFQKPKPAKGKPEAH  
FSLIHYAGTVDYNIAGWLDKNKDPLNETVVGLYQKSAMKTLALLFVGATGAE  
AEAGGGKKGGKKGGSSFTVSALFRENLNKLMTNLRSTHHPFVRCIIPNETKT  
PGAMEHELVLHQLRCNGVLEGIRICRKGFP SRILYADFKQRYKVLNASA IPEGQ  
15 FIDSKKASEKLLGSIDIDHTQYKFGHTKVFFKAGLLGLLEEMRDEKLAQLITRT  
QAMCRGFLARVEYQKMVERRESIFCIQYNVRAFMNVKHWPWMKLYFKIKPL  
LKSAETEKEMANMKEEFKTEELAKTEAKRKELEEKMTLMQEKNDLQLO  
VQAEADSLADAEERCDQLIKTKIQLEAKIKEVTERAEDEEEINAELTAKKRKL  
EDECELKKDIDDLTLAKVEKEKHATENKVKNLTEEMAGLDETIAKLTKEK  
20 KALQEAHQQTLDLQAEEDKVNTLTAKIKLEQQVDDLEGSLEQEKKIRMD  
LERAKRKLEGLKLAQESAMDIENDKQQLDEKLKKKEFEMSGLQSKIEDEQA  
LGMQLQKKIKELQARIEEEEEIEAERASRAKAEKQRS DLSRELEEISERLEEA  
GGATSAQIEMNKKREAEFQKMRRDLEEATLQHEATAATLRKKHADSV AELGE  
QIDNLQRVKQKLEKEKSEMMEIDDLASNMETVSKAKGNLEKMCRALEDQL  
25 SEIKTKEEEQQLINDLTAQRARLQTESGEYSRQLDEKDTLVSQLSRGKQAF  
QQIEELKRQLEEEIKAKSALAHALQSSRHDCDLLREQYEEEQEAKAELQAM  
SKANSEVAQWRTKYETDAIQRTTEELEAKKKLAQRLQDAEEHVEAVNAKCAS  
LEKTKQRLQNEVEDLMIDVERTNAACAALDKKQRNFDKILAEWKQKCEETH  
AELEASQKESRSLSTELFKIKNAYEESLDQLETLKRENKNLQQEISDLTEQIAE  
30 GKGRIHELEKIKKQVEQEKSELQAAL EEA EASLEHEEGKILRIQLELNQVKSEV  
DRKIAEKDEEIDQMKRNHIRIVESMQSTLDAEIRSRND AIRLKKKMEGDLNEM  
EIQLNHANRMAAEALRNYRNTQAILKDTQLHLDDALRSQEDLKEQLAMVER  
RANLLQAEIEELRATLEQT ERSRKIAEQELLDASERVQLLHTQNTSLINTKKKL  
ETDISQIQGEMEDI IQEARN AEEKAKKAITDAAMMAEELKKEQD TSAHLERM  
35 KKNLEQTVKDLQHRLDEAEQLALKGGKKQIQKLEARVRELEGEVESEQKRN  
VEAVKGLRKHERKV KELTYQTEEDRK NILRLQDLVDKLQAKVKSYKRQAE  
AEEQSNVNLSKFRRIQHELEEAERADIAESQVNKL RVKSREVHTKIISEE  
-COOH

40 Figure 73- Full-length Amino Acid Sequence (MYH1) (SEQ ID NO: 152)

NH<sub>2</sub>-MPGTALSPLLLLLLLSWASRNEAAPDQDEIDCLPGLAKQPSFRQYSGYLR  
ASDSKHFHYWFVESQNDPKNSPVVLWLNGGPGCSSLDGLLTEHGPFLIQPDG  
VTLEYNPYAWNLIANVLYIESPAGVGFSYSDDKMYVTNDTEVAENNYEALKD  
FFRLFPEYKDNKFLTGESYAGIYIPTLAVLVMQDPSMNLQGLAVGNGLASYE  
5 QNDNSLVYFAYYHGLLGNRLWTSLQTHCCAQNKCIFYDNKDPECVNNLLEV  
SRIVGKSGLNIYNLYAPCAGGVPGRHRYEDTLVVQDFGNIFTRLPLKRRFPEAL  
MRSGDKVRLDPPCTNTTAPSNYLNNPYVRKALHIPESLPRWDMCNFLVNLQY  
RRLYQSMNSQYLKLLSSQKYQILLYNGDVDMACNFMGDEWFVDSLQKME  
VQRRPWLVDYGESGEQVAGFVKECSHITFLTIKGAGHMPPTDKPRAAFTMFS  
10 RFLNKEPY  
-COOH

Figure 74- Full-length Amino Acid Sequence (mPPGB) (SEQ ID NO: 153)

NH<sub>2</sub>-MAAPRPPPAISVSVSAPAFYAPQKKFAPVVAPKPKVNPFRPGDSEPPVAAG  
AQRAQMGRVGEIPPPPEDFPLPPPPLIGEGDDSEGALGGAFPPPPPPMIEEPFPP  
APLEEDIFSPPPPLEEEGGPEAPTQLPPQPREKVCIDLEIDSLSSLLDDMTKND  
PFKARVSSGYVPPP VATPFV PKPSTKPAPGGTAPLPPWKTPSSSQPPQPQAKPQ  
5 VQLHVQPQAKPHVQPQP VSSANTQPRGPLSQAPTPAPKFAPVAPKFTPVVSKF  
SPGAPSGPGPQPNQK MVPPDAPSSVSTGSPQPPSFTYAQQKEKPLVQEKQHPQ  
PPPAQNQNQVRSPGGPGPLTLKEVEELEQLTQQLMQDMEHPQRQSVAVNESC  
GKCNQPLARAQPAVRALGQLFHITCFTCHQCQQQLQGQQFYSLGAPYCEGC  
YTDLTLEKCNCTCGQPITDRMLRATGKAYHPQCFTCVVCACPLEGTSFIVDQAN  
10 QPHCVDPYHKQYAPRC SVCSEPIMPEPGRDET VRVVALDKNFHMKCYKCEDC  
GKPLSIEADDNGCFPLDGHVLCRKCHSARAQT  
-COOH

Figure 75- Full-length Amino Acid Sequence (mZYX) (SEQ ID NO: 154)

NH<sub>2</sub>-MFADLDYDIEEDKLGIPVPGKVTLQKDAQNLIGISIGGGAQYCPCLYIV  
QVFDNTPAALDGTVAAGDEITGVNGKSIKGKTKVEVAKMIQEVKGEVTIHYN  
KLQADPKQGMSLDIVLKKVKHRLVENMSSGTADALGLSRAILCNDGLVKRLE  
ELERTAELYKGMTEHTKNLLRAFYELSQTHRAFGDVFSVIGVREPQPAASEAF  
5 VKFADAHRSIEKFGIRLLKTIKPMMLDLNTYLNKAIPDTRLTIKKYLDVKFEYL  
SYCLKVKEMDDEEYSCIALGEPLYRVSTGNYEYRLILRCRQEARARFSQMRK  
DVLEKMELLDQKHVQDIVFQLQRFVSTMSKYYNDCYAVLQDADVFPFIEVDL  
AHTTLAYGPNQGSFTDGEEDEEEEDGAAREVSKDACGATGPTDKGGSWCD  
S  
10 -COOH

Figure 76- Full-length Amino Acid Sequence (mPRKCABP) (SEQ ID NO: 155)

NH<sub>2</sub>-MGDVKLFASSHMSKTSHSVDP SKVSSMPLTEAPAFILPPRNLCVKEGATA  
 KFEGRVRGYPEPQVTWHRKGQAITNGGRFLLDCGVRGTFSLVIH TVREEDKG  
 KYTCEASNGSGARQVTVELTVEGNSMKKRDPVLSKASGFPGETRPSIWGEC  
 PPKFATKLGRAVVKEGQMGRFSCKITGRPPPQVTWLKGNVPLQPSARVSMSE  
 5 KNGMQILEIRGVTRDDLGVYTCMVVNGSGKASMSAELSIPGLDNAARLAVR  
 GTKAPSPDIRKEVTNGVSKDPETVAESKNCPSPQRSGSSARATNSHLKSPQEPK  
 PKLCEDAPRKVPQSSILQKSTSTITLQALKVQPEARVPAIGSFSPGEDRKSLAAP  
 QQATLPTRQSSLGGSVGNKFVTGNIPRESQRESTFPRFESQPQSQEVTEGQTVK  
 FICEVSGIPKPDVGWFLEGIPVRRREGITEVYEDGVSHHLCLLRARTRDSGRYS  
 10 CTASNSLGQVSCSWSLVDRPNLAQTAPSFSSVLKDSVVIEGQDFVLRCSVQG  
 TPAPRVTWLLNGQPIQFAHSICEAGVAELHIQDALPEDRGTYTCLAENAMGQV  
 SCSATVTVQEKKGEGEREHRLSPARSKPIAIFLQGLSDLKVM DGSQVTMTVQ  
 VSGNPPPEVIWLHDGNEIQESEDHFHEQKGGWHS LCIQEVFPEDTGTYTCEAW  
 NSAGEVRTRAVLTVQEPHDGTQPWFISKPRSVTATLGQSVLISCAIAGDPFPTV  
 15 HWLRDGRALSKDSGHFELLQNEDEVFTLV LKNVQPWHAGQYEILLKNRVGEC  
 SCQVSLMLHNSPSRAPPRGREPASCEGLCGGGGVGAHGDGDRHGTLRPCWP  
 ARGQGWP EEEDGEDVRGLLKRRVETRLHTEEAIRQQEVGQLDFRDLLGKKV  
 STKTVSEDDLDKIPAEQMDFRANLQRQVKPKTISEEERKVHSPQQVDFRSVLA  
 KKGTPKTPVPEKAPPKAATPDFRSVLGGKKKSPSENGGNSAEVLNVKAGESP  
 20 TPAGDAQAIGALKPVGNAKPAETPKPIGNAKPTETLKPVGNTKPAETLKPIAN  
 AQPSGSLKPVTNAQPAEPQKPVGNAKSAETSKPAGKEEVKEVKNDVNCKKG  
 QVGATGNEKRPE SQGSAPVFKEKLQDVHVAEGEKL LLQCQVISDPPATVTWSL  
 NGKTLKTTKFIVLAQEGSRFSVSIEKALPEDRGLYKCVAKNSAGQAECSCQVT  
 VDDAQTSENTKAPEMKSRPKSSLPPVLGTESDATVKKK PAKTPTKAAMPP  
 25 QIIQFPEDQKVRAGEPVELFGKVAGTQPITCKWMKFRKQIQESEHIKVENGES  
 GSKLTILAA RQEHCGCYTLVVENKLGSRQAQVNLT VVDKPDPPAGTPCASDIR  
 SSSLTLSWYGSSYDGGSAVQSYNVEIWDTE DKVWKELATCRSTS FNVQDLLP  
 DREYKFRVRANVNYGTSEPSQESELTA VGEKPEEPKDEVEVSDDDEKEPEVDY  
 RTVTVNTEQKVSDVYDIEERL GSGKFGQVFRLVEKKTGKIWAGKFFKAYS AK  
 30 EKDNI RQEISIMNCLHHPKLVQCVD AFEEKANIVMVLE  
 -COOH

Figure 77- Full-length Amino Acid Sequence (mMYLK) (SEQ ID NO: 156)

5'-GACCTGAAGGCCACGCTGAACTCTGGCCCAGGCGCCCAGCAGAAGGAG  
ATCGGAGAGTTGAAGGCCCTGGTAGAGGGCATCAAGATGGAGCACCAGCT  
GGAGTTAGGTAACTGTCAGGCCAAGCACGACTTGGAGACGGCCATGCATG  
GGAAGGAGAAGGAGGGCCTGCGGCAGAAGCTGCAAGAGGTCCAGGAGGA  
5 GCTGGCCGGGCTGCAGCAGCACTGGAGGGAGCAGCTGGAGGAGCAGGCC  
AGCCAGCATCGGCTGGAGCTCCAAGAAGCCCAGGACCAATGTCGCGACGC  
CCAGCTGCGCGCGCAGGAGCTAGAGGGACTGGATGTGGAGTACCGTGGCC  
AGGCTCAAGCCATCGAGTTCCTCAAAGAGCAGATCTCACTGGCTGAAAAG  
AAGATGCTAGATTACGAGATGCTGCAGAGGGCCGAAGCCCAGAGCAGGCA  
10 GGAGGCCGAGCGGCTGCGGGAAAAGCTTCTGGTGGCTGAGAATAGACTCC  
AGGCCGCCGAGTCCCTGTGCTCAGCCCAGCACAGCCATGTGATCGAATCCA  
GTGACCTTTCTGAGGAGACAATTCGGATGAAGGAGACTGTAGAGGGCCTG  
CAGGACAAGCTGAACAAGAGGGGACAAAGAGGTGACAGCCTTGACATCCC  
AGATGGACATGCTCAGGGCCCAAGTAAGTGCTCTAGAAAACAAGTGCAAA  
15 TCAGGAGAGAAGAAGATAGATTCTCTCCTGAAGGAGAAGAGGCGCCTAGA  
GGCAGAGCTGGAGGCTGTGTCTCGGAAGACCCACGATGCCTCCGGCCAGC  
TGGTCCACATCAGCCAGGAGTTGCTGCGGAAAGAGAGGAGTCTGAACGAG  
CTGAGGGGTGTTGCTGTTAGAAGCCAATCGCCACTCCCCAGGGCCCCGAGAG  
AGACCTGAGCCGTGAAGTACACAAAGCTGAATGGCGGATAAAGGAACAGA  
20 AACTGAAGGATGACATCCGGGGCCTGCGTGAGAAGCTGACCGGGCTGGAC  
AAGGAGAAGTCCCTATCAGAGCAGAGACGCTACTCCCTCATTGACCCAGCT  
TCACCACCCGAGCTGCTGAAACTGCAGCATCAGTTGGTGAGCACGGAAGA  
C-3'

25 Figure 78- Partial cDNA Nucleotide Sequence Encoding the Amino Acid Sequence of  
SEQ ID NO: 120 (SEQ ID NO: 157) (1098 nucleotides in total)

5'-GAGAAAGGAATCAAACCTGCTGCAGGCACAGAAGCTGGTGCAGTATTTG  
CGGGAGTGTGAGGATGTAATGGACTGGATCAATGACAAGGAAGCAATTGT  
GACTTCTGAGGAGCTGGGCCAGGACCTGGAGCATGTAGAGGTGCTACAGA  
AGAAGTTTGAAGAGTTTCAGACTGATCTGGCTGCTCATGAAGAAAGAGTT  
5 AATGAAGTGAGCCAGTTTGCTGCCAAACTCATCCAGGAGCAGCACCCGGA  
AGAGGAGCTGATCAAGACCAAGCAGGATGAGGTGAATGCAGCATGGCAGC  
GACTGAAAGGCCTGGCTCTTCAAAGGCAGGGCAAGCTGTTCCGGTGCTGCT  
GAGGTCCAGCGCTTTAACAGGGATGTAGATGAGACCATTGGTTGGATTAAG  
GAGAAAGAGCAGTTAATGGCCTCTGATGACTTCGGCAGAGACTTAGCAAG  
10 TGTTCAAGCTCTGCTTCGAAAGCATGAGGGTCTGGAGAGAGATCTTGCTGC  
TCTAGAGGACAAGGTGAAAGCCCTGTGTGCTGAGGCTGACCGCCTGCAAC  
AGTCACACCCTCTGAGTGCCAGCCAGATCCAGGGGAAGCGA-3'

Figure 79- Partial cDNA Nucleotide Sequence Encoding the Amino Acid Sequence of  
15 SEQ ID NO: 123 (SEQ ID NO: 158) (591 nucleotides in total)

5'-GACGATGCCGCCGTGGAGACAGCTGAGGAAGCAAAGGAGCCTGCTGAA  
GCTGACATCACTGAGCTCTGCCGGGACATGTTCTCCAAAATGGCCACTTAC  
CTGACTGGGGAACTGACGGCCACCAGTGAAGACTATAAGCTCCTGGAAAA  
TATGAATAAACTCACCAGCTTGAAGTATCTTGAAATGAAAGATATTGCTATA  
5 AACATTAGTAGGAACTTAAAGGACTTAAACCAGAAATATGCTGGACTGCAG  
CCTTATCTGGATCAGATCAATGTCATTGAAGAGCAGGTAGCAGCTCTTGAG  
CAGGCAGCTTACAAGTTGGATGCATATTCAAAAAAACTGGAAGCCAAGTAC  
AAGAAGCTGGAGAAGCGATGA-3'

10 Figure 80- Partial cDNA Nucleotide Sequence Encoding the Amino Acid Sequence of  
SEQ ID NO: 132 (SEQ ID NO: 159) (375 nucleotides in total)

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